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New bird records for the Serranía de Las Quinchas, Colombia: inventory update and comments on distributions in an altitudinal gradient

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Abstract
The diversity of birds in the Las Quinchas mountain range amounted to 374 taxa in 2007, most of them distributed in the tropical region of the massif. We made five sampling trips between March and October 2019 to different locations in the Tropical and Sub-Andean regions of Las Quinchas, we added 11 species increasing in 3% the avian richness of the mountains. The 383 species are distributed in 55 families and 22 orders. One species is categorized as Critically Endangered and four are the Vulnerable. There was greater species richness in the upper part of the mountains and low turnover between altitude ranges.

Keywords
Andean region, distribution range, species distribution, taxonomic diversity, tropical humid forests.

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Introduction

The Serranía de Las Quinchas is an area characterized by its great diversity of species, including birds (Stiles and Bohórquez 2000). This is largely due to its geographical location on the eastern side of the Magdalena valley, which is part of the Choco-Magdalena biogeographical region (Hernández-Camacho et al. 1992). This location creates ideal characteristics for the structure and richness of its flora that supports a typical fauna of tropical humid forests (Hernández-Camacho et al. 1992; Etter 1998; Stiles 1998). Among the rich diversity of species are the birds, the group of vertebrates with the highest species richness values in Colombia (Hilty 2002; Freeman et al. 2012; Avendaño et al. 2017). Currently, the Las Quinchas mountain range is under multiple pressures which alter its original vegetation cover and cause effect on the resident fauna (Stiles and Bohórquez 2000). Many of these pressures reached their peak in the 1970s, when much of the lower and middle Magdalena basin was deforested for agriculture, livestock, and timber extraction (Renjifo 1998). However, it is still possible to observe extensive areas of preserved forests and other areas where there is passive restoration by fast-growing plant species (Herrera 2006; Córdoba-Córdoba and Sierra 2018).

Birds have been studied in the Las Quinchas for the past two decades. The first list was published by Stiles and Bohórquez (2000), with a species richness of 308

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species. Later Laverde-R. et al. (2005) listed 368 species and finally Cuervo et al. (2007) added additional species, bringing the total number of species to 374. Thus, since the first list, the known bird fauna of Las Quinchas has been increased by 18%. However, the complexity of the mountainous area and the pressures on them make frequent updates necessary to know the biotic components in detail and to give early alerts on the decline of species or their local disappearance in the Las Quinchas. Up to date lists of the bird fauna of Las Quinchas can contribute to its management and for proposals for adequate conservation strategies. Additionally, the recent accelerated boom in molecular phylogenetics has generated taxonomic changes, which directly affect ornithological lists, forcing more frequent updates to keep pace with taxonomy (Praveen et al. 2018).

The objective of our research was to provide new bird records for the Las Quinchas mountain range, to update the taxonomy of the list of avifauna available for this locality, and to note distributions of bird species in the altitudinal gradient that make up the mountain range. Our list and new data will be useful for entities responsible for ensuring the maintenance and conservation of biotic resources in this part of Colombia.

Methods

The study area comprised three sectors in the Serranía de Las Quinchas, Boyacá, Colombia (Fig. 1). These were located along an altitudinal gradient from 100 to 1100 m a.s.l. (Fig. 1). The sectors were made up of the following:

1. La Ye Sector: Vereda La Ye, Municipality of Otanche, Boyacá (05°48′47″N, 074°15′06″W), was characterized as a mountainous site on the eastern slopes of the mountains with elevations from 600 m to 1100 m a.s.l. We carried out the sampling in the surrounding area and on the banks of the Chorro Negro and Los Mártires ravines. Sampling sites included preserved and fragmented forest cover, as well as corn, banana, and cocoa crops, some grasslands, and stubble (Balcázar-Vargas et al. 2000).
2. La Cristalina Sector: La Cristalina, Municipality of Puerto Boyacá, Boyacá (05°49′49″N, 074°18′22″W), with elevations between 260 m and 500 m a.s.l. Anthropogenic interventions in the area are intensive (Balcázar-Vargas et al. 2000), but forest fragments remain that are surrounded by pastureland used for livestock and agricultural crops around the La Cristalina ravines.
3. Puerto Pinzón Sector: Puerto Pinzón is located in the Municipality of Puerto Boyacá, Boyacá (06°03′06″N, 074°16′56″W). This sector was characterized by its historical deforestation and changes in land use for licit and illicit crops. However, it is possible to find preserved parts with forests of secondary vegetation and small native forest parks.

The taxonomy used in our list is based on work published by Stiles and Bohórquez (2000), Laverde-R. et al. (2005) and de Cuervo et al. (2007), with updates according to taxonomic proposals of the American Ornithological Society (Remsen et al. 2020).

We included the threat categories of species in our list, according to the International Union for the Conservation of Nature (IUCN 2020).

For each sector, we established three transects (routes) on the physical edge and inside the vegetative cover, which we defined as gallery forests, high open forests, and intervening areas.

We made five field trips, between March and October 2019, including during the annual rainy, dry, and transitional periods (Rangel-Ch. and Aguilar-P. 1995). We made direct observations with binoculars and a camera for each transect and between 5:30 h and 11:00 h and between 15:00 h and 18:00 h during the busiest hours for the birds (Gómez et al. 2008).

For field identification, we used the field guides by Hilty and Brown (1986), McMullan et al. (2010), and Ayerbe-Quiñones (2018).

The new data in this paper are deposited at the Global Biodiversity Information Facility (GBIF) and are available at https://doi.org/10.15468/2xntjv (García-Monrroy et al. 2020).

Results

We obtained records of 383 species, distributed in 55 families and 22 orders. The best represented orders were Paseriformes (239 spp.), Apodiformes (34 spp.), and Piciforms (14 spp.). Among the families with the greatest number of species are the Tyrannidae (52 species), Thraupidae (46 spp.), Trochilidae (29 spp.), Furnariidae and Thamnophilidae (19 spp. each one), and Parulidae (18 spp.). The rest of the families are represented by less than 15 species (Table 1).

By altitude range, we found the greatest richness in the Sub-Andean region, followed by the high tropical region and finally the low tropical region (Fig. 2). We identified a low turnover of species between the altitudinal ranges. We recorded *Crax alberti* Fraser, 1852, which is Critically Endangered, and *Patagioenas plumbea* (Vieillot, 1818), *Dacnis hartlaubi* (P.L. Sclater, 1855), *Capito hypoleucus* Salvin, 1897, and *Ramphastos vitellinus* M.H.C. Lichtenstein, 1823, which are Vulnerable. Similarly, we observed six Colombian endemic species in the Serranía de Las Quinchas: *Crax alberti* Fraser, 1852, *Ortalis columbiana* Hellmayr, 1906, *Habia gutturalis* (P.L. Sclater, 1854), *Dacnis hartlaubi* (P.L. Sclater, 1855), *Capito hypoleucus* Salvin, 1897, and *Melanerpes pulcher* P.L. Sclater, 1870.

We found 11 migratory Boreal species: *Cathartes aura* (Linnaeus, 1758), *Tringa solitaria* (A. Wilson, 1813), *Pheucticus ludovicianus* (Linnaeus, 1766), *Piranga olivacea* (Gmelin, 1789), *Piranga rubra* (Linnaeus, 1758), *Progne tapera* (Linnaeus, 1766), *Parkesia*

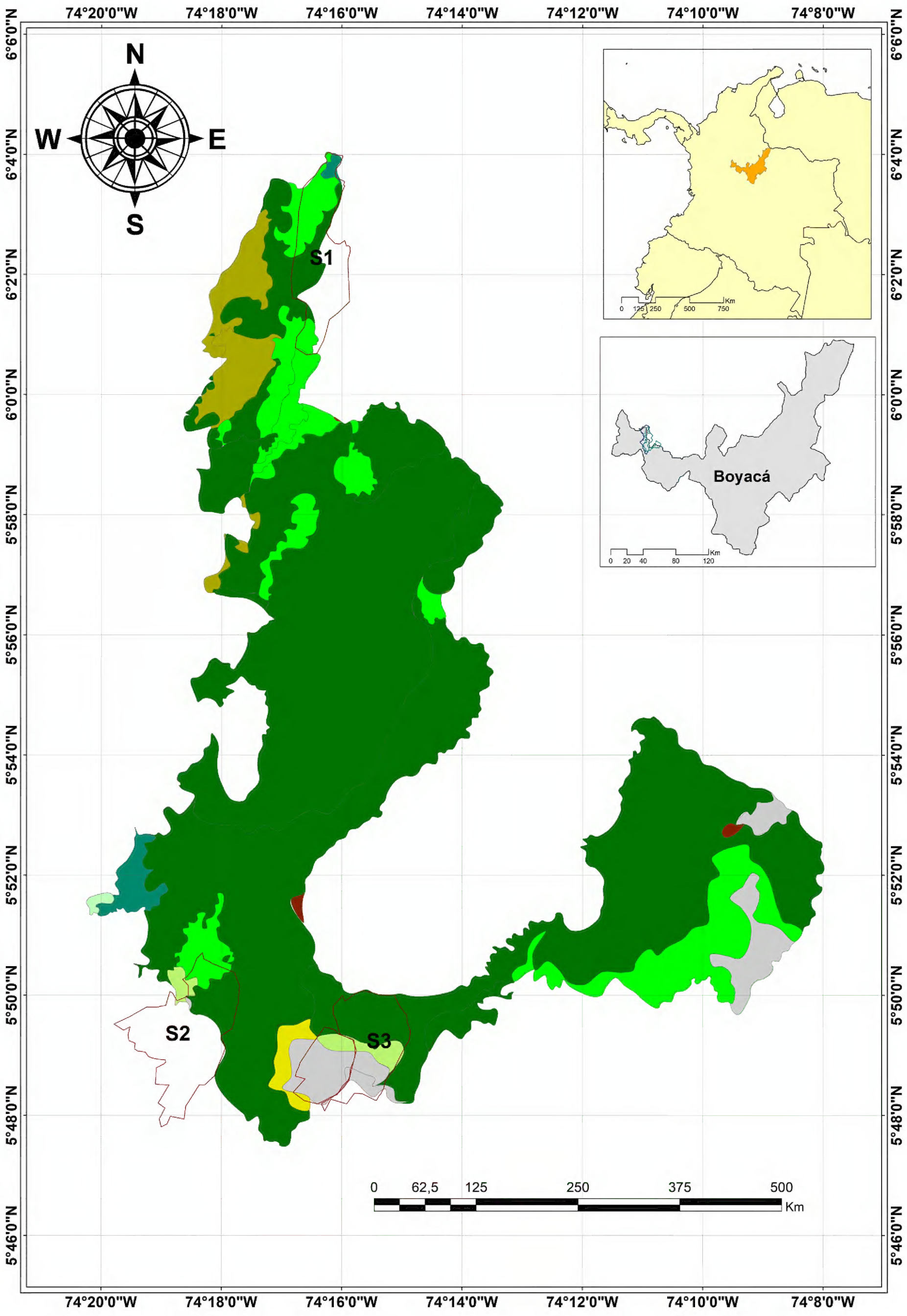

Figure 1. Location of the study area, Las Quinchas mountain range, Magdalena medio, Colombia. S1 = Puerto Pinzón, S2 = La Cristalina and S3 = La Ye.

Table 1. List of birds recorded at the Serrania de Las Quinchas. Legend: Migratory status: resident and migrant. Sites: S1 = Puerto Pinzón, S2 = La Cristalina and S3 = La Ye. Sources: this study (1), Stiles and Bohórquez 2000 (2) and Laverde-R et al. 2005 (3).

Taxon	English name	Voucher	Migratory status	Sites	Source
Tinamiformes Huxley, 1872					
Tinamidae G.R. Gray, 1840					
Crypturellus soui (Hermann, 1783)	Little Tinamou	OBS283789	Resident	S1, S2, S3	2, 3
Tinamus major (Gmelin, 1789)	Great Tinamou	OBS283788	Resident	S2	2, 3
Galliformes (Temminck, 1820)					
Cracidae Vigors, 1825					
Aburria aburri (R. Lesson, 1828)	Wattled Guan	OBS500437554	Resident	S2, S3	3
Crax alberti Fraser, 1852**	Blue-knobbed Curassow	OBS34163	Resident	S1, S2	1, 3
Ortalis columbiana Hellmayr, 1906	Colombian Chachalaca	OBS400355534	Resident	S1	1, 3
Odontophoridae (Gould, 1844)					
Colinus cristatus (Linnaeus, 1766)	Crested Bobwhite	OBS246791	Resident	S1	2, 3
Odontophorus gujanensis (Gmelin, 1789)	Marbled Wood-quail	OBS246954	Resident	S3	2, 3
Podicipediformes Fürbringer, 1888					
Podicipedidae Bonaparte, 1831					
Tachybaptus dominicus (Linnaeus, 1766)	Least Grebe	OBS672726984	Resident	S1	1, 3
Columbiformes (Latham, 1790)					
Columbidae Illiger, 1811					
Claravis pretiosa (Ferrari-Pérez, 1886)	Blue Ground-dove	OBS283865	Resident	S1, S2	2, 3
Columbina passerina (Linnaeus, 1758)	Common Ground-dove	OBS283863	Resident	S1, S2, S3	2, 3
Columbina talpacoti (Temminck, 1810)	Ruddy Ground-dove	OBS35477	Resident	S3	1, 2, 3
Geotrygon montana (Linnaeus, 1758)	Ruddy Quail-dove	OBS33838	Resident	S2	2, 3
Leptotila cassinii Lawrence, 1867	Grey-chested Dove	OBS283867	Resident	S1, S2	1, 2, 3
Leptotila verreauxi Bonaparte, 1855	White-tipped Dove	OBS283866	Resident	S1	2, 3
Patagioenas cayennensis (Bonnaterre, 1792)	Pale-vented Pigeon	OBS283859	Resident	S2, S3	1, 2, 3
Patagioenas plumbea (Vieillot, 1818)	Plumbeous Pigeon	OBS33323	Resident	S3	1, 2, 3
Patagioenas speciosa (Gmelin, 1789)	Scaled Pigeon	OBS334507593	Resident	S1, S2, S3	2, 3
Patagioenas subvinacea (Lawrence, 1868)	Ruddy Pigeon	OBS283861	Resident	S1	2, 3
Zenaida auriculata (Des Murs, 1847)	Eared Dove	OBS283862	Resident	S1	1, 2, 3
Zentrygon linearis (Prévost, 1843)	Lined Quail-dove	OBS283865	Resident	S2, S3	3
Cuculiformes Wagler, 1830					
Cuculidae Leach, 1820					
Coccycua minuta (Vieillot, 1817)	Little Cuckoo	OBS245275	Resident	S2	2, 3
Coccyzus americanus (Linnaeus, 1758)	Yellow-billed Cuckoo	OBS245335	Migrant	S1, S2, S3	2, 3
Crotophaga ani Linnaeus, 1758	Smooth-billed Ani	OBS27047	Resident	S1, S2, S3	1, 2, 3
Crotophaga major Gmelin, 1788	Greater Ani	OBS245105	Resident	S1, S2	1, 2, 3
Piaya cayana (Linnaeus, 1766)	Squirrel Cuckoo	OBS33771	Resident	S2, S3	1, 2, 3
Tapera naevia (Linnaeus, 1766)	Striped Cuckoo	OBS243497	Resident	S1, S2, S3	2, 3
Nyctibiiformes					
Nyctibiidae Ridgway, 1881					
Nyctibius griseus (Gmelin, 1789)	Common Potoo	OBS283856	Resident	S1, S2	2, 3
CaprimulgiformeS Ridgway, 1881					
Caprimulgidae Vigors, 1825					
Lurocalis semitorquatus (Gmelin, 1789)	Short-tailed Nighthawk	OBS283857	Resident	S2, S3	2, 3
Nyctidromus albicollis (Gmelin, 1789)	Pauraque	OBS283858	Resident	S3	2, 3
Uropsalis lyra (Bonaparte, 1850)	Lyre-tailed Nightjar	OBS488345963	Resident	S1, S2, S3	1, 3
Apodiformes Peters, 1940					
Apodidae Burmeister, 1846					
Chaetura brachyura (Jardine, 1846)	Short-tailed Swift	OBS283826	Resident	S1, S2, S3	3
Chaetura spinicaudus (Temminck, 1839)	Band-rumped Swift	OBS334340516	Resident	S1, S2, S3	3
Panyptila cayennensis (Gmelin, 1789)	Lesser Swallow-tailed Swift	OBS174283171	Resident	S2, S3	1, 3
Streptoprocne rutila (Vieillot, 1817)	Chestnut-collared Swift	OBS488286005	Resident	S2, S3	2, 3
Streptoprocne zonaris (Shaw, 1796)	White-collared Swift	OBS283825	Resident	S1, S2, S3	2, 3
Trochilidae Vigors, 1825					
Amazilia tzacatl (de la Llave, 1833)	Rufous-tailed Hummingbird	Photography	Resident	S1	1, 2, 3
Anthracothorax nigricollis (Vieillot, 1817)	Black-throated Mango	Photography	Resident	S3	1, 2, 3
Chaetocercus heliodor (Bourcier, 1840)	Gorgeted Woodstar	Photography	Resident	S1, S2, S3	2, 3
Chalybura buffonii (R. Lesson, 1832)	White-vented Plumeleteer	OBS35214	Resident	S1, S2, S3	2, 3
Chlorestes julie (Bourcier, 1843)	Violet-bellied Hummingbird	OBS32745	Resident	S3	2, 3
Chlorostilbon gibsoni (Fraser, 1840)	Red-billed Emerald	OBS283839	Resident	S3	2, 3
Chrysuronia goudoti (Bourcier, 1843)	Shining-green Hummingbird	OBS32742	Resident	S3	2, 3
Colibri coruscans (Gould, 1846)	Sparkling Violet-ear	Photography	Resident	S3	1, 3
Colibri cyanotus (Bourcier, 1843)	Lesser Violet-ear	Photography	Resident	S1, S2	1, 2, 3
Colibri delphinae (R. Lesson, 1839)	Brown Violet-ear	OBS283834	Resident	S3	2, 3
Discosura conversii (Bourcier & Mulsant, 1846)	Green Thorntail	OBS33319	Resident	S3	2, 3
Doryfera ludovicae (Bourcier & Mulsant, 1847)	Green-fronted Lancebill	OBS283832	Resident	S3	2, 3
Eutoxeres aquila (Bourcier, 1847)	White-tipped Sicklebill	OBS283831	Resident	S1, S2, S3	2, 3
Florisuga mellivora (Linnaeus, 1758)	White-necked Jacobin	Photography	Resident	S1, S2, S3	1, 2, 3

Taxon	English name	Voucher	Migratory status	Sites	Source
Glaucis hirsutus (Gmelin, 1788)	Rufous-breasted Hermit	OBS33837	Resident	S3	2, 3
Heliodoxa jacula Gould, 1850	Green-crowned Brilliant	OBS32760	Resident	S2, S3	2, 3
Heliomaster longirostris (Audebert & Vieillot, 1801)	Long-billed Starthroat	OBS283850	Resident	S2, S3	2, 3
Heliothryx barroti (Bourcier, 1843)	Purple-crowned Fairy	OBS33322	Resident	S3	2, 3
Klais guimeti (Bourcier, 1843)	Violet-headed Hummingbird	OBS32996	Resident	S1	2, 3
Lophornis delattrei (R. Lesson, 1839)	Rufous-crested Coquette		Resident	S1, S2, S3	3
Phaethornis anthophilus (Bourcier, 1843)	Pale-bellied Hermit	Photography	Resident	S2, S3	1, 2, 3
Phaethornis guy (R. Lesson, 1833)	Green Hermit	OBS283829	Resident	S2, S3	2, 3
Phaethornis longirostris (Delattre, 1843)	Long-billed Hermit	OBS32739	Resident	S1, S2, S3	2, 3
Phaethornis striigularis Gould, 1854	Stripe-throated Hermit	OBS32737	Resident	S1, S2, S3	2, 3
Polyerata amabilis (Gould, 1853)	Blue-chested Hummingbird	OBS32747	Resident	S3	2, 3
Saucerottia cyanifrons (Bourcier, 1843)	Indigo-capped Hummingbird	OBS283845	Resident	S2, S3	2, 3
Thalurania colombica (Bourcier, 1843)	Blue-crowned Woodnymph	OBS32755	Resident	S2, S3	2, 3
Threnetes ruckeri (Bourcier, 1847)	Band-tailed Barbthroat	OBS34141	Resident	S3	2, 3
Uranomitra franciae (Bourcier & Mulsant, 1846)	Andean Emerald	OBS32754	Resident	S2	2, 3
Gruiformes (Bonaparte, 1854)					
Aramidae Bonaparte, 1854					
Aramus guarauna (Linnaeus, 1766)	Limpkin	OBS247113	Resident	S1	2, 3
Rallidae Vigors, 1825					
Aramides cajaneus (Statius Müller, 1776)	Grey-necked Wood-Rail	Photography	Resident	S2, S3	1, 2, 3
Laterallus albigularis (Lawrence, 1861)	White-throated Crake	OBS415220908	Resident	S1	3
Porphyrio martinica (Linnaeus, 1766)	Purple Gallinule	Photography	Resident	S1	1, 3
Charadriiformes Huxley, 1867					
Charadriidae Vigors, 1825					
Vanellus chilensis (Molina, 1782)	Southern Lapwing	Photography	Resident	S1	1, 2, 3
Scolopacidae Rafinesque, 1815					2, 3
Actitis macularius (Linnaeus, 1766)	Spotted Sandpiper	OBS000932	Migrant	S1	2, 3
Tringa melanoleuca (Gmelin, 1789)	Greater Yellowlegs	OBS286683107	Migrant	S1	3
Tringa solitaria A. Wilson, 1813	Solitary Sandpiper	Photography	Migrant	S2, S3	1, 2, 3
Jacanidae Stejneger, 1885					
Jacana jacana (Linnaeus, 1766)	Wattled Jacana	Photography	Resident	S1	1, 3
Pelecaniformes Sharpe, 1891					
Ardeidae Leach, 1820					
Bubulcus ibis (Linnaeus, 1758)	Western Cattle Egret	OBS10891	Resident	S1, S2, S3	1, 2, 3
Ardea cocoi Linnaeus, 1766	Cocoi Heron	OBS493870798	Resident	S1	1, 3
Ardea alba Linnaeus, 1758	Garceta grande	OBS538554076	Resident	S1, S2	1, 3
Butorides striata (Linnaeus, 1758)	Striated Heron	OBS176288	Resident	S1, S2	1, 2, 3
Egretta caerulea (Linnaeus, 1758) **	Little Blue Heron	OBS210007802	Boreal Migratory	S1	1
Egretta thula (Molina, 1782)	Snowy Egret	OBS540694750	Resident	S1	1, 2, 3
Nycticorax nycticorax (Linnaeus, 1758)	Black-crowned Night-Heron	OBS428568943	Resident	S1	1, 2, 3
Pilherodius pileatus (Boddaert, 1783)	Capped Heron	OBS10107	Resident	S1	1, 2, 3
Tigrisoma lineatum (Boddaert, 1783)	Rufescent Tiger-Heron	OBS105936	Resident	S1	1, 2, 3
Threskiornithidae Poche, 1904					2, 3
Phimosus infuscatus (M.H.K. Lichtenstein, 1823)	Whispering Ibis	OBS682142653	Resident	S1	1, 3
Cathartiformes Coues, 1884					
Cathartidae Lafresnaye, 1839					
Sarcoramphus papa (Linnaeus, 1758)	King Vulture	OBS81185	Resident	S1	2, 3
Coragyps atratus (Bechstein, 1793)	Black Vulture	Photography	Resident	S1, S2, S3	1, 2, 3
Cathartes aura (Linnaeus, 1758)	Turkey Vulture	Photography	Migrant	S1, S2, S3	1, 2, 3
Accipitriformes Vieillot, 1816					
Accipitridae Viellot, 1816					
Accipiter bicolor (Vieillot, 1817)	Bicoloured Hawk	OBS488293987	Resident	S1, S2	3
Buteo nitidus (Latham, 1790)	Grey-lined Hawk	OBS005866	Resident	S3	2, 3
Buteo platypterus (Vieillot, 1823)	Broad-winged Hawk	OBS488345966	Migrant	S3	3
Buteogallus meridionalis (Latham, 1790)	Savanna Hawk	OBS006027	Resident	S1	2, 3
Elanoides forficatus (Linnaeus, 1758)	Swallow-tailed Kite	OBS 005661	Resident	S1	2, 3
Gampsonyx swainsonii Vigors, 1825	Pearl Kite	OBS004026	Resident	S1	3
Geranoaetus albicaudatus (Vieillot, 1816)	White-tailed Hawk	OBS423101085	Resident	S1	2, 3
Ictinia plumbea (Gmelin, 1788)	Plumbeous Kite	Photography	Resident	S2	1, 2, 3
Morphnarchus princeps (P.L. Sclater, 1865)	Barred Hawk	OBS32812	Resident	S1, S2, S3	2, 3
Pseudastur albicollis (Latham, 1790)	White Hawk	OBS540280514	Resident	S1, S2	2, 3
Rupornis magnirostris (Gmelin, 1788)	Roadside Hawk	Photography	Resident	S1, S2	1, 2, 3
Spizaetus tyrannus (Wied-Neuwied, 1820)	Black Hawk-Eagle	OBS003495	Resident	S2, S3	2, 3
Strigiformes agler, 1830					
Strigidae Leach, 1820					
Strix nigrolineata (P.L. Sclater, 1859)	Black-and-white Owl	OBS283854	Resident	S1	2, 3
Strix virgata (Cabanis, 1862)	Mottled Owl	OBS283853	Resident	S2, S3	2, 3
Lophostrix cristata (Daudin, 1800)	Crested Owl	OBS283855	Resident	S3	2, 3
Megascops choliba (Vieillot, 1817)	Tropical Screech-Owl	OBS283852	Resident	S1, S3	2, 3

Taxon	English name	Voucher	Migratory status	Sites	Source
Trogoniformes A. O. U., 1886					
Trogonidae Lesson, 1828					
Ramphastos ambiguus Gould, 1838 **	Gartered Trogon	OBS585939135	Resident	S1	1
Trogon chionurus P.L. Sclater & Salvin, 1871 **	White-tailed Trogon	OBS329870364	Resident	S1	1
Trogon violaceus Gmelin, 1788	Guianan Trogon	OBS283809	Resident	S2, S3	2, 3
Trogon viridis Linnaeus, 1766	Green-backed Trogon	OBS283808	Resident	S2, S3	2, 3
Coraciiformes Forbes, 1884					
Momotidae Gray, 1840					
Baryphthengus martii (Spix, 1824)	Rufous Motmot	OBS283811	Resident	S2, S3	2, 3
Electron platyrhynchum (Leadbeater, 1829)	Broad-billed Motmot	OBS283810	Resident	S2	2, 3
Alcedinidae Rafinesque, 1815					
Chloroceryle aenea (Pallas, 1764)	American Pygmy Kingfisher	OBS387860	Resident	S1	2, 3
Chloroceryle amazona (Latham, 1790)	Amazon Kingfisher	Photography	Resident	S1, S2, S3	1
Chloroceryle americana (Gmelin, 1788)	Green Kingfisher	OBS247902	Resident	S1	1, 2, 3
Megaceryle torquata (Linnaeus, 1766)	Ringed Kingfisher	OBS080243	Resident	S2, S3	2, 3
Galbuliformes					
Galbulidae Bonaparte, 1831					
Galbula ruficauda Cuvier, 1816	Rufous-tailed Jacamar	Photography	Resident	S2	1, 2, 3
Bucconidae Boie, 1826					
Hypnelus ruficollis (Wagler, 1829)	Russet-throated Puffbird	OBS27039	Resident	S1	1, 3
Malacoptila panamensis Lafresnaye, 1847	White-whiskered Puffbird	OBS32818	Resident	S2	2, 3
Monasa morphoeus (Hahn & Küster, 1823)	White-fronted Nunbird	OBS283807	Resident	S2, S3	1, 2, 3
Nystalus radiatus (P.L. Sclater, 1854)	Barred Puffbird	Photography	Resident	S2	1, 2, 3
Piciformes Meyer & Wolf, 1810					
Capitonidae Bonaparte, 1838					
Capito hypoleucus Salvin, 1897	White-mantled Barbet	OBS193321030	Resident	S1, S2, S3	1, 2, 3
Ramphastidae Vigors, 1825					
Aulacorhynchus haematopygus (Gould, 1835)	Crimson-rumped Toucanet	OBS283801	Resident	S3	2, 3
Pteroglossus torquatus (Gmelin, 1788)	Collared Aracari	OBS33845	Resident	S1, S2, S3	1, 2, 3
Ramphastos vitellinus M.H.K. Lichtenstein, 1823	Channel-billed Toucan	OBS400355504	Resident	S1, S2, S3	1, 2, 3
Ramphastos ambiguus Swainson, 1823 **	Yellow-throated Toucan	Photography	Resident	S1	1
Picidae Leach, 1820					
Campephilus haematogaster (Tschudi, 1844)	Crimson-bellied Woodpecker	OBS32987	Resident	S3	1, 3
Campephilus melanoleucos (Gmelin, 1788)	Crimson-crested Woodpecker	OBS283799	Resident	S1, S2	1, 2, 3
Celeus loricatus (Reichenbach, 1854)	Cinnamon Woodpecker	OBS283797	Resident	S2, S3	1, 2, 3
Colaptes punctigula (Boddaert, 1783)	Freckle-breasted Woodpecker	OBS283796	Resident	S1, S2	2, 3
Dryocopus lineatus (Linnaeus, 1766)	Lineated Woodpecker	OBS283798	Resident	S1, S2	1
Melanerpes pulcher P.L. Sclater, 1870	Beautiful Woodpecker	OBS281702452	Resident	S2, S3	1, 2, 3
Melanerpes rubricapillus (Cabanis, 1862)	Red-crowned Woodpecker	OBS283794	Resident	S1, S2	1, 2, 3
Picumnus olivaceus Lafresnaye, 1845	Olivaceous Piculet	OBS25118	Resident	S1, S2, S3	2, 3
Veniliornis kirkii (Malherbe, 1845)	Red-rumped Woodpecker	OBS33761	Resident	S1, S2, S3	1, 2, 3
Falconiformes Sharpe, 1874					
Falconidae Vigors, 1824					
Caracara cheriway (Jacquin, 1784)	Crested Caracara	Photography	Resident	S1, S2	1, 2, 3
Falco rufigularis Daudin, 1800	Bat Falcon	OBS007546	Resident	S1, S2, S3	1, 2, 3
Falco sparverius Linnaeus, 1758	American Kestrel	Photography	Resident	S1	1, 2, 3
Herpetotheres cachinnans (Linnaeus, 1758)	Laughing Falcon	Photography	Resident	S1, S2	1
Micrastur ruficollis (Vieillot, 1817)	Barred Forest-Falcon	OBS007484	Resident	S3	2, 3
Milvago chimachima (Vieillot, 1816)	Yellow-headed Caracara	Photography	Resident	S1, S2, S3	1, 2, 3
Psittaciformes Wagler, 1830					
Psittacidae Rafinesque, 1815					
Brotogeris jugularis (Statius Müller, 1776)	Orange-chinned Parakeet	OBS283822	Resident	S1, S2, S3	1, 2, 3
Amazona autumnalis (Linnaeus, 1758)	Red-lored Parrot	OBS176741196	Resident	S1	3
Amazona amazonica (Linnaeus, 1766)	Orange-winged Parrot	OBS647086164	Resident	S1	1, 2, 3
Amazona ochrocephala (Gmelin, 1788)	Yellow-crowned Parrot	OBS174286050	Resident	S1, S2	3
Ara ararauna (Linnaeus, 1758)	Blue-and-yellow Macaw	OBS334340544	Resident	S1	1, 3
Ara severus (Linnaeus, 1758)	Chestnut-fronted Macaw	OBS493870837	Resident	S1	1, 3
Forpus conspicillatus (Lafresnaye, 1848)	Spectacled Parrotlet	OBS283821	Resident	S1, S2, S3	1, 2, 3
Pionus chalcopterus (Fraser, 1841)	Bronze-winged Parrot	OBS506438006	Resident	S3	3
Pionus menstruus (Linnaeus, 1766)	Blue-headed Parrot	OBS283824	Resident	S1, S2, S3	1, 2, 3
Pyrilia pyrilia (Bonaparte, 1853)	Saffron-headed Parrot	OBS32995	Resident	S1, S2, S3	1, 2, 3
Passeriformes Linnaeus, 1758					
Thamnophilidae Swainson, 1824					
Cercomacroides tyrannina (P.L. Sclater, 1855)	Dusky Antbird	OBS33760	Resident	S2, S3	2, 3
Cymbilaimus lineatus (Leach, 1814)	Fasciated Antshrike	OBS121430	Resident	S2, S3	2, 3
Dysithamnus mentalis (Temminck, 1823	Plain Antvireo	OBS30739	Resident	S3	2, 3
Epinecrophylla fulviventris (Lawrence, 1862)	Checker-throated Stipplethroat	OBS281707922	Resident	S1, S2	2, 3
Formicivora grisea (Boddaert, 1783)	White-fringed Antwren	OBS34149	Resident	S1, S2	1, 2, 3
Gymnocichla nudiceps (Cassin, 1850)	Bare-crowned Antbird	OBS33774	Resident	S1, S2	1, 3

Taxon	English name	Voucher	Migratory status	Sites	Source
Gymnopithys bicolor (Lawrence, 1863) **	Bicolored Antbird	OBS176654679	Resident	S1	1
Hafferia immaculata (Lafresnaye, 1845)	Blue-lored Antbird	OBS32830	Resident	S3	2, 3
Microrhopias quixensis (Cornalia, 1849)	Dot-winged Antwren	OBS374880	Resident	S2, S3	2, 3
Myrmotherula axillaris (Vieillot, 1817)	White-flanked Antwren	OBS32980	Resident	S2	2, 3
Myrmotherula pacifica Hellmayr, 1911 **	Pacific Antwren	OBS410968988	Resident	S1	1
Myrmotherula schisticolor (Lawrence, 1865)	Slaty Antwren	OBS32988	Resident	S3	2, 3
Poliocrania exsul (P.L. Sclater, 1859)	Chestnut-backed Antbird	OBS681585008	Resident	S1, S2	2, 3
Sipia palliata (Todd, 1907)	Magdalena Antbird	OBS32230	Resident	S2	1, 3
Taraba major (Vieillot, 1816)	Great Antshrike	OBS198062	Resident	S1, S2	2, 3
Thamnophilus doliatus (Linnaeus, 1764)	Barred Antshrike	OBS358158	Resident	S1, S2	1, 2, 3
Thamnophilus multistriatus Lafresnaye, 1844	Bar-crested Antshrike	OBS415223595	Resident	S2, S3	2, 3
Thamnophilus nigriceps P.L. Sclater, 1869	Black Antshrike	OBS586016428	Resident	S1, S2, S3	2, 3
Thamnophilus punctatus (Shaw, 1809)	Northern Slaty-Antshrike	OBS30983	Resident	S2, S3	2, 3
Conopophagidae Sclater & Salvin, 1873					
Conopophaga castaneiceps P.L. Sclater, 1857	Chestnut-crowned Gnateater	OBS32833	Resident	S3	2, 3
Rhinocryptidae Wetmore, 1930					
Scytalopus femoralis (Tschudi, 1844)	Rufous-vented Tapaculo	OBS33108	Resident	S3	2, 3
Formicariidae Gray, 1840					
Formicarius analis (d'Orbigny & Lafresnaye, 1837)	Black-faced Antthrush	OBS32823	Resident	S2, S3	2, 3
Furnariidae Gray, 1840					
Automolus ochrolaemus (Tschudi, 1844)	Buff-throated Foliage-gleaner	OBS029825	Resident	S2, S3	2, 3
Automolus subulatus (Spix, 1824)	Eastern Woodhaunter	OBS33769	Resident	S3	3
Campylorhamphus trochilirostris (M.H.K. Lichtenstein, 1820)	Red-billed Scythebill		Resident	S3	3
Certhiaxis cinnamomeus (Gmelin, 1788)	Yellow-chinned Spinetail	Photography	Resident	S1, S2, S3	1, 3
Clibanornis rubiginosus (P.L. Sclater, 1857)	Ruddy Foliage-gleaner	OBS32985	Resident	S3	2, 3
Dendrocincla fuliginosa (Vieillot, 1818)	Plain-brown Woodcreeper	OBS32825	Resident	S1, S2, S3	2, 3
Dendrocolaptes certhia (Boddaert, 1783)	Amazonian Barred-Woodcreeper	OBS195281	Resident	S2	2, 3
Dendroplex picus (Gmelin, 1788)	Straight-billed Woodcreeper	OBS028378	Resident	S1, S2	1, 2, 3
Glyphorynchus spirurus (Vieillot, 1819)	Wedge-billed Woodcreeper	OBS32826	Resident	S1, S2, S3	2, 3
Lepidocolaptes souleyetii (Lafresnaye, 1849)	Streak-headed Woodcreeper	OBS195987	Resident	S2, S3	1, 2, 3
Philydor fuscipenne Salvin, 1866	Slaty-winged Foliage-gleaner	OBS32827	Resident	S2, S3	2, 3
Premnoplex brunnescens (P.L. Sclater, 1856)	Spotted Barbtail	OBS029690	Resident	S3	2, 3
Sittasomus griseicapillus (Vieillot, 1818)	Olivaceous Woodcreeper	OBS32756	Resident	S1, S3	2, 3
Synallaxis albescens Temminck, 1823	Pale-breasted Spinetail	OBS027266	Resident	S1, S2, S3	2, 3
Synallaxis brachyura Lafresnaye, 1843	Slaty Spinetail	OBS028595	Resident	S1, S2	2, 3
Xenops minutus (Sparrman, 1788)	Plain Xenops	OBS32824	Resident	S2, S3	2, 3
Xiphocolaptes promeropirhynchus (R. Lesson, 1840)	Strong-billed Woodcreeper	OBS32979	Resident	S2, S3	2, 3
Xiphorhynchus lachrymosus (Lawrence, 1862)	Black-striped Woodcreeper	OBS34221	Resident	S2, S3	2, 3
Pipridae Rafinesque, 1815					
Ceratopipra erythrocephala (Linnaeus, 1758)	Golden-headed Manakin	OBS669927398	Resident	S2, S3	2, 3
Corapipo leucorrhoa (P.L. Sclater, 1863)	White-bibbed Manakin	OBS242724	Resident	S2, S3	2, 3
Pseudopipra pipra (Linnaeus, 1758)	White-crowned Manakin	OBS242862	Resident	S3	3
Machaeropterus regulus (Hahn, 1819)	Kinglet Manakin	OBS283957	Resident	S2, S3	2, 3
Manacus manacus (Linnaeus, 1766)	White-bearded Manakin	OBS32828	Resident	S1, S2, S3	1, 2, 3
Masius chrysopterus (Lafresnaye, 1843)	Golden-winged Manakin	OBS33004	Resident	S3	2, 3
Cotingidae Bonaparte, 1849					
Cotinga nattererii (Boissonneau, 1840)	Blue Cotinga	OBS053272	Resident	S2	2, 3
Querula purpurata (Statius Müller, 1776)	Purple-throated Fruitcrow	Photography	Resident	S2, S3	1, 2, 3
Tityridae Gray, GR, 1840					
Laniocera rufescens (P.L. Sclater, 1858)	Speckled Mourner	OBS488338006	Resident	S3	3
Pachyramphus cinnamomeus Lawrence, 1861	Cinnamon Becard	OBS33006	Resident	S1, S2, S3	1, 2, 3
Pachyramphus homochrous P.L. Sclater, 1859 **	One-colored Becard	OBS682142642	Resident	S1	1
Pachyramphus polychopterus (Vieillot, 1818)	White-winged Becard	OBS283947	Resident	S1, S2, S3	2, 3
Pachyramphus rufus (Boddaert, 1783)	Cinereous Becard	OBS33320	Resident	S1, S2, S3	2, 3
Schiffornis turdina (Wied-Neuwied, 1831)	Brown-winged Schiffornis	OBS32973	Resident	S2, S3	2, 3
Tityra inquisitor (M.H.K. Lichtenstein, 1823)	Black-crowned Tityra	OBS408586	Resident	S1, S2, S3	1, 2, 3
Tityra semifasciata (Spix, 1825)	Masked Tityra	OBS182640	Resident	S2, S3	1, 2, 3
Onychorhynchidae Tello & al., 2009					
Myiobius atricaudus Lawrence, 1863	Black-tailed Flycatcher	OBS33748	Resident	S2	2, 3
Onychorhynchus coronatus (Statius Müller, 1776)	Amazonian Royal-Flycatcher	OBS497455902	Resident	S2	3
Terenotriccus erythrurus (Cabanis, 1847)	Ruddy-tailed Flycatcher	OBS488221224	Resident	S2	3
Tyrannidae Vigors, 1825					
Aphanotriccus audax (Nelson, 1912) **	Black-billed Flycatcher	Photography	Resident	S1	1
Arundinicola leucocephala (Linnaeus, 1764)	White-headed Marsh-Tyrant	OBS410968986	Resident	S1	3
Attila spadiceus (Gmelin, 1789)	Bright-rumped Attila	OBS191140	Resident	S2	2, 3
Camptostoma obsoletum (Temminck, 1824)	Southern Beardless-Tyrannulet	OBS370565	Resident	S1	2, 3
Capsiempis flaveola (M.H.K. Lichtenstein, 1823)	Yellow Tyrannulet	OBS34139	Resident	S1, S2	2, 3
Colonia colonus (Vieillot, 1818)	Long-tailed Tyrant	OBS371347	Resident	S2, S3	1, 2, 3
Contopus cinereus (Spix, 1825)	Tropical Pewee	OBS192640	Resident	S1, S2	2, 3

Taxon	English name	Voucher	Migratory status	Sites	Source
Contopus cooperi (Nuttall, 1831)	Olive-sided Flycatcher	OBS106682	Boreal Migratory	S3	2, 3
Contopus virens (Linnaeus, 1766)	Eastern Wood-Pewee	OBS106840	Boreal Migratory	S1, S2, S3	2, 3
Elaenia chiriquensis Lawrence, 1865	Lesser Elaenia	OBS176739854	Resident	S1, S2, S3	2, 3
Elaenia flavogaster (Thunberg, 1822)	Yellow-bellied Elaenia	OBS593477907	Resident	S1, S2, S3	1, 2, 3
Empidonax alnorum Brewster, 1895	Alder Flycatcher	OBS34225	Boreal Migratory	S1, S2	2, 3
Empidonax virescens (Vieillot, 1818)	Acadian Flycatcher	OBS106741	Boreal Migratory	S2, S3	2, 3
Fluvicola pica (Boddaert, 1783)	Pied Water-Tyrant	OBS111663	Resident	S1	1, 2, 3
Knipolegus poecilurus (P.L. Sclater, 1862)	Rufous-tailed Tyrant	OBS353961	Resident	S1, S3	2, 3
Legatus leucophaius (Vieillot, 1818)	Piratic Flycatcher	OBS408504	Resident	S1, S2, S3	2, 3
Leptopogon amaurocephalus Cabanis, 1846	Sepia-capped Flycatcher	OBS34223	Resident	S1, S2	2, 3
Leptopogon superciliaris Tschudi, 1844	Slaty-capped Flycatcher	OBS283899	Resident	S3	2, 3
Lophotriccus pileatus (Tschudi, 1844)	Scale-crested Pygmy-Tyrant	OBS371318	Resident	S3	2, 3
Machetornis rixosa (Vieillot, 1819)	Cattle Tyrant	OBS355398	Resident	S1, S2	1, 2, 3
Megarynchus pitangua (Linnaeus, 1766)	Boat-billed Flycatcher	OBS12748	Resident	S1, S2	2, 3
Mionectes oleagineus (M.H.K. Lichtenstein, 1823)	Ochre-bellied Flycatcher	OBS283897	Resident	S1, S2, S3	2, 3
Mionectes olivaceus Lawrence, 1868	Olive-striped Flycatcher	OBS283896	Resident	S3	2, 3
Myiarchus crinitus (Linnaeus, 1758)	Great Crested Flycatcher	OBS33750	Boreal Migratory	S1, S2, S3	2, 3
Myiarchus panamensis Lawrence, 1860	Panama Flycatcher	OBS113467	Resident	S1, S2	2, 3
Myiarchus tuberculifer (d'Orbigny & Lafresnaye, 1837)	Dusky-capped Flycatcher	OBS355286	Resident		2, 3
Myiodynastes luteiventris P.L. Sclater, 1859	Sulphur-bellied Flycatcher	OBS179660	Boreal Migratory	S1, S2, S3	2, 3
Myiodynastes maculatus (Statius Müller, 1776)	Streaked Flycatcher	OBS32735	Migratorio austral	S1, S2	1, 2, 3
Myiopagis viridicata (Vieillot, 1817)	Greenish Elaenia	OBS117685	Resident	S2	2, 3
Myiophobus fasciatus (Statius Müller, 1776)	Bran-colored Flycatcher	OBS407671	Resident	S3	2, 3
Myiornis atricapillus (Lawrence, 1875)	Black-capped Pygmy-Tyrant	OBS354103	Resident	S2	2, 3
Myiotriccus ornatus (Lafresnaye, 1853)	Ornate Flycatcher	OBS24663	Resident	S3	1, 2, 3
Myiozetetes cayanensis (Linnaeus, 1766)	Rusty-margined Flycatcher	OBS180229	Resident	S1, S2, S3	1, 2, 3
Oncostoma olivaceum (Lawrence, 1862)	Southern Bentbill	OBS33749	Resident	S2, S3	1, 2, 3
Phyllomyias griseiceps (P.L. Sclater & Salvin, 1871)	Sooty-headed Tyrannulet	OBS283903	Resident	S2, S3	2, 3
Phylloscartes superciliaris (P.L. Sclater & Salvin, 1868)	Rufous-browed Tyrannulet	OBS283899	Resident	S3	3
Piprites chloris (Temminck, 1822)	Wing-barred Piprites	OBS33002	Resident	S3	2, 3
Pitangus lictor (M.H.C. Lichtenstein, 1823)	Lesser Kiskadee	OBS354566	Resident	S1	2, 3
Pitangus sulphuratus (Linnaeus, 1766)	Great Kiskadee	OBS16528	Resident	S1, S2, S3	2, 3
Platyrinchus mystaceus Vieillot, 1818	White-throated Spadebill	OBS33324	Resident	S3	2, 3
Poecilotriccus sylvia (Desmarest, 1806)	Slate-headed Tody-Flycatcher	OBS400355528	Resident	S1, S2, S3	2, 3
Rhynchocyclus olivaceus (Temminck, 1820)	Olivaceous Flatbill	OBS33011	Resident	S2	2, 3
Rhytipterna holerythra (P.L. Sclater & Salvin, 1860)	Rufous Mourner	OBS112944	Resident	S2	2, 3
Sayornis nigricans (Swainson, 1827)	Black Phoebe	OBS189960	Resident	S1, S2	1, 2, 3
Todirostrum cinereum (Linnaeus, 1766)	Common Tody-Flycatcher	OBS21042	Resident	S1, S2, S3	2, 3
Todirostrum nigriceps P.L. Sclater, 1855	Black-headed Tody-Flycatcher	OBS420326103	Resident	S1, S2, S3	2, 3
Tolmomyias assimilis (Pelzeln, 1868)	Zimmer's Flycatcher	OBS32741	Resident	S2	2, 3
Tyrannulus elatus (Latham, 1790)	Yellow-crowned Tyrannulet	OBS185309	Resident	S1, S2, S3	2, 3
Tyrannus melancholicus Vieillot, 1819	Tropical Kingbird	OBS34151	Migratorio austral	S1, S2, S3	1, 2, 3
Tyrannus savana Daudin, 1802	Fork-tailed Flycatcher	OBS283936	Migratorio austral	S1	1, 2, 3
Tyrannus tyrannus (Linnaeus, 1758)	Black Hawk-Eagle	OBS12981	Boreal Migratory	S1, S2	2, 3
Zimmerius viridiflavus (Tschudi, 1844)	Peruvian Tyrannulet	OBS356463	Resident	S2, S3	2, 3
Vireonidae Swainson, 1837					
Cyclarhis gujanensis (Gmelin, 1789)	Rufous-browed Peppershrike	OBS124617	Resident	S2	1, 2, 3
Hylophilus flavipes Lafresnaye, 1845	Scrub Greenlet	OBS124737	Resident	S1, S2	2, 3
Pachysylvia decurtata (Bonaparte, 1838)	Lesser Greenlet	OBS281707836	Resident	S2, S3	2, 3
Pachysylvia semibrunnea Lafresnaye, 1845	Rufous-naped Greenlet	OBS32997	Resident	S3	2, 3
Vireo flavifrons Vieillot, 1808	Yellow-throated Vireo	OBS379294	Boreal Migratory	S3	3
Vireo olivaceus (Linnaeus, 1766)	Red-eyed Vireo	OBS201021	Boreal Migratory	S1, S2, S3	2, 3
Vireolanius eximius S.F. Baird, 1866	Yellow-browed Shrike-Vireo	OBS33619	Resident	S2, S3	2, 3
Corvidae Vigors, 1825					
Cyanocorax affinis Pelzeln, 1856	Black-chested Jay	OBS034814	Resident	S1, S2, S3	1, 2, 3
Hirundinidae Vigors, 1825					
Atticora tibialis (Cassin, 1853)	White-thighed Swallow	OBS34140	Resident	S1, S2	1, 2, 3
Hirundo rustica Linnaeus, 1758	Barn Swallow	OBS036010	Migrant	S1, S2	2, 3
Progne chalybea (Gmelin, 1789)	Grey-breasted Martin	OBS036642	Resident	S1, S2, S3	2, 3
Progne tapera (Linnaeus, 1766) **	Brown-chested Martin	Photography	Migrant	S1	1
Stelgidopteryx ruficollis (Vieillot, 1817)	Southern Rough-winged Swallow	OBS035433	Resident	S1, S2, S3	2, 3
Tachycineta albiventer (Boddaert, 1783)	White-winged Swallow	OBS036407	Resident	S1, S2, S3	1, 2, 3
Troglodytidae Swainson, 1832					2, 3
Campylorhynchus griseus (Swainson, 1838)	Bicolored Wren	OBS176739748	Resident	S3	1, 3
Campylorhynchus zonatus (R. Lesson, 1832)	Band-backed Wren	OBS216070	Resident	S1, S2, S3	2, 3
Cantorchilus leucopogon (Salvadori & Festa, 1899)	Stripe-throated Wren	OBS32815	Resident	S2, S3	2, 3
Henicorhina leucophrys (Tschudi, 1844)	Gray-breasted Wood-Wren	OBS48144	Resident	S3	1, 2, 3
Henicorhina leucosticta (Cabanis, 1847)	White-breasted Wood-Wren	OBS33745	Resident	S2, S3	2, 3
Microcerculus marginatus (P.L. Sclater, 1855)	Scaly-breasted Wren	OBS32821	Resident	S2, S3	2, 3

Taxon	English name	Voucher	Migratory status	Sites	Source
Pheugopedius fasciatoventris (Lafresnaye, 1845)	Black-bellied Wren	OBS681585000	Resident	S1, S2, S3	2, 3
Pheugopedius sclateri (Taczanowski, 1879)	Speckle-breasted Wren	OBS32814	Resident	S3	3
Pheugopedius spadix Bangs, 1910	Sooty-headed Wren	OBS57887150	Resident	S2, S3	2, 3
Troglodytes aedon Vieillot, 1809	House Wren	OBS213850	Resident	S1, S2, S3	1, 2, 3
Polioptilidae Baird, 1858					
Microbates cinereiventris (P.L. Sclater, 1855)	Tawny-faced Gnatwren	OBS410969032	Resident	S2, S3	2, 3
Ramphocaenus melanurus Vieillot, 1819	Long-billed Gnatwren	OBS216778	Resident	S3	2, 3
Donacobiidae Swainson, 1831					
Donacobius atricapilla (Linnaeus, 1766)	Black-capped Donacobius	OBS049274	Resident	S1	2, 3
Turdidae Rafinesque, 1815					
Catharus minimus (Lafresnaye, 1848)	Gray-cheeked Thrush	OBS34161	Boreal Migratory	S2, S3	2, 3
Catharus ustulatus (Nuttall, 1840)	Swainson⊠s Thrush	OBS157760	Boreal Migratory	S1, S2, S3	1, 2, 3
Turdus ignobilis P.L. Sclater, 1858	Black-billed Thrush	OBS158508	Resident	S1, S2, S3	2, 3
Turdus leucomelas Vieillot, 1818	Pale-breasted Thrush	OBS281707847	Resident	S1	1, 3
Turdus obsoletus Lawrence, 1862	Pale-vented Thrush	OBS32978	Resident	S2	2, 3
Turdus serranus Tschudi, 1844	Glossy-black Thrush	OBS410969240	Resident	S3	3
Mimidae (Bonaparte, 1853)					
Mimus gilvus (Vieillot, 1808)	Tropical Mockingbird	OBS049391	Resident	S1, S2	1, 2, 3
Fringillidae Vigors, 1825					
Chlorophonia cyanea (Thunberg, 1822)	Blue-naped Chlorophonia	OBS415220908	Resident	S3	3
Euphonia cyanocephala (Vieillot, 1819)	Golden-rumped Euphonia	OBS60974218	Resident	S3	1, 3
Euphonia fulvicrissa P.L. Sclater, 1857	Fulvous-vented Euphonia	OBS33752	Resident	S2	2, 3
Euphonia laniirostris d'Orbigny & Lafresnaye, 1837	Thick-billed Euphonia	OBS35479	Resident	S1, S2, S3	1, 2, 3
Euphonia xanthogaster Sundevall, 1834	Orange-bellied Euphonia	OBS32992	Resident	S3	2, 3
Spinus psaltria (Say, 1822)	Lesser Goldfinch	Photography	Resident	S3	1, 2, 3
Spinus xanthogastrus (Du Bus de Gisignies, 1855)	Yellow-bellied Siskin	OBS688754216	Resident	S3	1, 3
Passerellidae Cabanis, 1851					
Arremon atricapillus (Lawrence, 1874)	Black-headed Brush-Finch	OBS488348418	Resident	S3	3
Arremon aurantiirostris Lafresnaye, 1847	Orange-billed Sparrow	OBS32813	Resident	S2	2, 3
Arremon brunneinucha (Lafresnaye, 1839)	Chestnut-capped Brush-Finch	OBS206291	Resident	S2	2, 3
Arremonops conirostris (Bonaparte, 1850)	Black-striped Sparrow		Resident		2, 3
Atlapetes albinucha (Lafresnaye & d'Orbigny, 1838)	White-naped Brushfinch		Resident		3
Zonotrichia capensis (Statius Müller, 1776)	Rufous-collared Sparrow	OBS360088	Resident	S1, S2, S3	1, 2, 3
Icteridae (Vigors, 1825)					
Chrysomus icterocephalus (Linnaeus, 1766)	Yellow-hooded Blackbird	Photography	Resident	S1	1, 3
Icterus auricapillus Cassin, 1848	Orange-crowned Oriole	OBS054650	Resident	S1, S2	1, 2, 3
Icterus chrysater (R. Lesson, 1844)	Yellow-backed Oriole	OBS056088	Resident	S1, S2, S3	1, 2, 3
Icterus galbula (Linnaeus, 1758)	Baltimore Oriole	OBS171363759	Migrant	S1, S3	2, 3
Icterus mesomelas (Wagler, 1829)	Yellow-tailed Oriole	OBS418991895	Resident	S1	3
Icterus nigrogularis (Hahn, 1819)	Yellow Oriole	Photography	Resident	S1	1, 2, 3
Leistes militaris (Linnaeus, 1758)	Red-breasted Blackbird	OBS055639	Resident	S1	2, 3
Molothrus bonariensis (Gmelin, 1789)	Shiny Cowbird	OBS053577	Resident	S1, S2	1, 2, 3
Molothrus oryzivorus (Gmelin, 1788)	Giant Cowbird	OBS510107502	Resident	S1	1, 3
Psarocolius decumanus (Pallas, 1769)	Crested Oropendola	Photography	Resident	S1	1
Psarocolius wagleri (Gray, GR, 1844)	Chestnut-headed Oropendola	OBS488330478	Resident	S3	1, 3
Parulidae Wetmore & al., 1947					
Basileuterus rufifrons (Swainson, 1838)	Rufous-capped Warbler	OBS070902	Resident	S2, S3	2, 3
Basileuterus tristriatus (Tschudi, 1844)	Three-striped Warbler	OBS32987	Resident	S3	2, 3
Cardellina canadensis (Linnaeus, 1766)	Canada Warbler	OBS068296	Migrant	S2, S3	2, 3
Geothlypis philadelphia (A. Wilson, 1810)	Mourning Warbler	OBS068601	Migrant	S1, S2, S3	2, 3
Leiothlypis peregrina (A. Wilson, 1811)	Tennessee Warbler	OBS155444	Migrant	S1, S2, S3	3
Mniotilta varia (Linnaeus, 1766)	Black-and-white Warbler	OBS071063	Migrant	S3	2, 3
Myioborus miniatus (Swainson, 1827)	Slate-throated Redstart	OBS067727	Resident	S3	1, 2, 3
Myiothlypis cinereicollis (P.L. Sclater, 1864)	Grey-throated Warbler	OBS32763	Resident	S3	2, 3
Myiothlypis fulvicauda (Spix, 1825)	Buff-rumped Warbler	OBS33746	Resident	S1, S2, S3	2, 3
Parkesia noveboracensis (Gmelin, 1789)	Northern Waterthrush	OBS069526	Migrant	S1	1, 2, 3
Setophaga castanea (A. Wilson, 1810)	Bay-breasted Warbler	OBS072739	Migrant	S1, S2, S3	2, 3
Setophaga cerulea (A. Wilson, 1810)	Cerulean Warbler	OBS072090	Migrant	S2, S3	2, 3
Setophaga fusca (Statius Müller, 1776)	Blackburnian Warbler	OBS072150	Migrant	S3	1, 2, 3
Setophaga pensylvanica (Linnaeus, 1766) **	Chestnut-sided Warbler		Migrant	S3	1
Setophaga petechia (Linnaeus, 1766)	Mangrove Warbler	OBS071649	Migrant	S1, S2	2, 3
Setophaga pitiayumi (Vieillot, 1817)	Tropical Parula	OBS071468	Resident	S3	2, 3
Setophaga ruticilla (Linnaeus, 1758)	American Redstart	OBS070018	Migrant	S2, S3	2, 3
Vermivora chrysoptera (Linnaeus, 1766)	Golden-winged Warbler	OBS071405	Migrant	S3	2, 3
Cardinalidae Ridgway, 1901					
Cyanoloxia cyanoides (Lafresnaye, 1847)	Blue-black Grosbeak	OBS32759	Resident	S1, S2, S3	2, 3
Habia gutturalis (P.L. Sclater, 1854)	Sooty Ant-Tanager	OBS32841	Resident	S1, S2	2, 3
Pheucticus ludovicianus (Linnaeus, 1766)	Rose-breasted Grosbeak	Photography	Migrant	S2, S3	1, 3
Piranga olivacea (Gmelin, 1789)	Scarlet Tanager	Photography	Migrant	S2	1, 2, 3

Taxon	English name	Voucher	Migratory status	Sites	Source
Piranga rubra (Linnaeus, 1758)	Summer Tanager	Photography	Migrant	S1, S2, S3	1, 2, 3
Thraupidae Bent (1965)					
Asemospiza obscura (d'Orbigny & Lafresnaye, 1837)	Dull-colored Grassquit	OBS574895632	Resident	S3	2, 3
Chlorophanes spiza (Linnaeus, 1758)	Green Honeycreeper	OBS328144	Resident	S2, S3	1, 2, 3
Coereba flaveola (Linnaeus, 1758)	Bananaquit	OBS379909	Resident	S1, S2	1, 2, 3
Conirostrum albifrons Lafresnaye, 1842	Capped Conebill	OBS488285938	Resident	S3	3
Conirostrum leucogenys (Lafresnaye, 1852)	White-eared Conebill	OBS410969248	Resident	S1	3
Cyanerpes caeruleus (Linnaeus, 1758)	Purple Honeycreeper	OBS379634	Resident	S2, S3	1, 2, 3
Dacnis cayana (Linnaeus, 1766)	Blue Dacnis	OBS33753	Resident	S2, S3	1, 2, 3
Dacnis hartlaubi P.L. Sclater, 1855	Turquoise Dacnis	OBS33318	Resident	S3	2, 3
Dacnis lineata (Gmelin, 1789)	Black-faced Dacnis	OBS33759	Resident	S1, S2, S3	1, 2, 3
Eucometis penicillata (Spix, 1825)	Gray-headed Tanager	OBS33754	Resident	S1, S2	2, 3
Haplospiza rustica (Tschudi, 1844)	Slaty Finch	OBS34285	Resident	S3	3
Hemithraupis flavicollis (Vieillot, 1818)	Yellow-backed Tanager	OBS284043	Resident	S2, S3	1, 2, 3
Hemithraupis guira (Linnaeus, 1766)	Guira Tanager	OBS102595738	Resident	S2, S3	3
Heterospingus xanthopygius (P.L. Sclater, 1855)	Scarlet-browed Tanager	OBS510107525	Resident	S2	3
Ixothraupis guttata (Cabanis, 1851)	Speckled Tanager	OBS32990	Resident	S3	2, 3
Loriotus luctuosus (d'Orbigny & Lafresnaye, 1837)	White-shouldered Tanager	OBS33839	Resident	S2, S3	2, 3
Ramphocelus carbo (Pallas, 1764)	Silver-beaked Tanager		Resident	S1, S2, S3	1, 2, 3
Ramphocelus dimidiatus Lafresnaye, 1837	Crimson-backed Tanager	OBS34152	Resident	S1, S2, S3	1, 2, 3
Ramphocelus flammigerus (Jardine & Selby, 1833)	Flame-rumped Tanager	OBS688777138	Resident	S2, S3	2, 3
Saltator coerulescens Vieillot, 1817	Grayish Saltator	OBS27034	Resident	S1, S2, S3	1, 2, 3
Saltator grossus (Linnaeus, 1766)	Slate-colored Grosbeak	OBS207822	Resident	S2, S3	2, 3
Saltator maximus (Statius Müller, 1776)	Buff-throated Saltator	OBS34153	Resident	S1, S2, S3	1, 2, 3
Saltator striatipectus Lafresnaye, 1847	Streaked Saltator	OBS400355500	Resident	S3	3
Saltator atripennis P.L. Sclater, 1857	Black-winged Saltator	OBS133886	Resident	S3	2, 3
Schistochlamys melanopis (Latham, 1790)	Black-faced Tanager	OBS382259	Resident	S1	2, 3
Sicalis flaveola (Linnaeus, 1766)	Saffron Finch	OBS211842	Resident	S1, S2	1, 2, 3
Sporophila angolensis (Linnaeus, 1766)	Chestnut-bellied Seed-Finch	OBS350222090	Resident	S1, S2, S3	2, 3
Sporophila crassirostris (Gmelin, 1789) **	Large-billed Seed-Finch	OBS43379	Resident	S1	1
Sporophila funerea (P.L. Sclater, 1860)	Thick-billed Seed-Finch	OBS33012	Resident	S3	1, 2, 3
Sporophila intermedia Cabanis, 1851	Gray Seedeater	OBS410969352	Resident	S1, S2, S3	1, 2, 3
Sporophila lineola (Linnaeus, 1758)	Lined Seedeater	OBS211707	Resident	S1	2, 3
Sporophila minuta (Linnaeus, 1758)	Ruddy-breasted Seedeater	OBS44748	Resident	S1, S2, S3	1, 2, 3
Sporophila nigricollis (Vieillot, 1823)	Yellow-bellied Seedeater	OBS377296	Resident	S1, S2, S3	1, 2, 3
Stilpnia cyanicollis (d'Orbigny & Lafresnaye, 1837)	Blue-necked Tanager	OBS57887144	Resident	S2, S3	1, 2, 3
Stilpnia larvata (Du Bus de Gisignies, 1846)	Golden-hooded Tanager	OBS180268043	Resident	S1, S2	1, 2, 3
Stilpnia vitriolina (Cabanis, 1851)	Scrub Tanager	OBS561129863	Resident	S3	2, 3
Tachyphonus rufus (Boddaert, 1783)	White-lined Tanager	OBS146750	Resident	S1, S2, S3	1, 2, 3
Tangara arthus R. Lesson, 1832	Golden Tanager	OBS32994	Resident	S3	2, 3
Tangara gyrola (Linnaeus, 1758)	Bay-headed Tanager	OBS382321	Resident	S2, S3	1, 2, 3
Tangara inornata (Gould, 1855)	Plain-colored Tanager	OBS34136	Resident	S1, S2, S3	1, 2, 3
Tersina viridis (Illiger, 1811)	Swallow Tanager	OBS33008	Resident	S2	2, 3
Thraupis episcopus (Linnaeus, 1766)	Blue-gray Tanager	OBS233835	Resident	S1, S2, S3	1, 2, 3
Thraupis palmarum (Wied-Neuwied, 1821)	Palm Tanager	OBS152013	Resident	S1, S2, S3	1, 2, 3
Volatinia jacarina (Linnaeus, 1766)	Blue-black Grassquit	OBS378013	Resident	S1, S2, S3	2, 3

** New records for the Serranía de Las Quinchas.

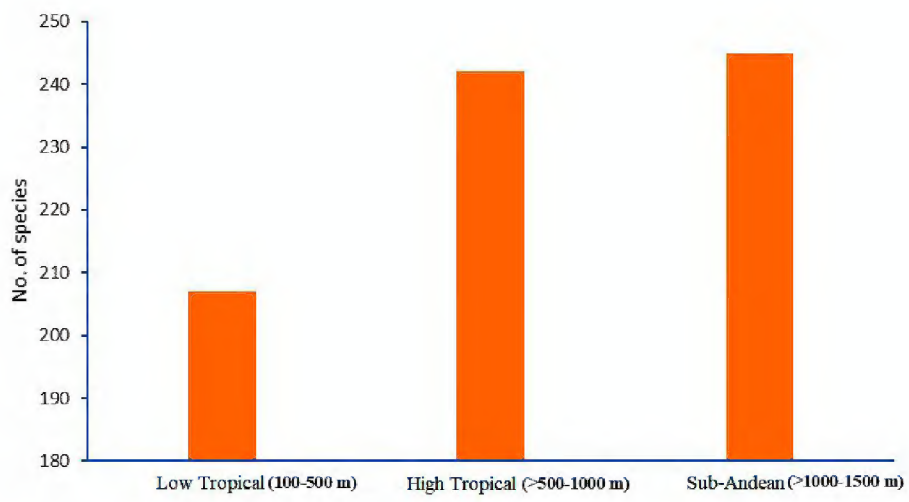

Figure 2. Number of species per altitudinal band in an altitudinal gradient of the Las Quinchas mountain range, Magdalena medio, Colombia.

noveboracensis (Gmelin, 1789), *Setophaga fusca* (Statius Müller, 1776), *Setophaga pensylvanica* (Linnaeus, 1766), *Catharus ustulatus* (Nuttall, 1840), and *Egretta caerulea* (Linnaeus, 1758). Two migratory Austral species were also found: *Myiodynastes maculatus* (Statius Müller, 1776) and *Tyrannus savana* (Daudin, 1802).

Below, we describe some aspects of the distribution and biological observations of some species recorded in the Serranía de Las Quinchas.

Class Aves
Order Galliformes
Family Cracidae

Genus *Crax* Linnaeus, 1758

***Crax alberti* (Fraser, 1852)**
Figure 3A

Observations. COLOMBIA • 5 ♀, 2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón; 06° 03′06″N, 074°16′56″W; 100 m a.s.l.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest; observed individual. • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074° 18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest; observed individual.

Identification. We identified this species by its blue bill for the males and pale bill for the females along with yellow legs. Additionally, all the plumage of the dorsum is black; the ventrum of the male is white and that of the female brown.

Genus *Ortalis* Merrem, 1786

***Ortalis columbiana* Hellmayr, 1906**
Figure 3B

Observations. COLOMBIA • 4 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón; 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest; observed individual.

Identification. We identified this species by its pale-yellow bill with a dark tip, yellow legs, the plumage of the

Figure 3. A. *Crax alberti*; dorsal length 92.5 cm. **B.** *Ortalis columbiana*; dorsal length 53 cm. **C.** *Tachybaptus dominicus*; dorsal length 25 cm. **D.** *Columbina talpacoti*; dorsal length 16 cm. **E.** *Leptotila cassinii*; dorsal length 25 cm. **F.** *Patagioenas cayennensis*; dorsal length 26.5 cm. **G.** *Patagioenas plumbea*; dorsal length 34 cm. **H.** *Zenaida auriculata*; dorsal length 25 cm. **I.** *Crotophaga ani*; dorsal length 35 cm. Photography: J.S. García.

entire body dark brown, and a small red hanging gular patch.

Order Podicipediformes
Family Podicipedidae
Genus *Tachybaptus* Reichenbach, 1853

***Tachybaptus dominicus* (Linnaeus, 1766)**
Figure 3C

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species by its slim black bill and orange yellow eyes, slate gray head and neck.

Order Columbiformes
Family Columbidae
Genus *Columbina* Spix, 1825

***Columbina talpacoti* (Temminck, 1810)**
Figure 3D

Observations. COLOMBIA • 3 ♀3 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest.

Identification. We identified this species as being cinnamon brown with a light gray crown in the sun. Additionally, some black spots are on the wing coverts.

Genus *Leptotila* Swainson, 1837

***Leptotila cassinii* (Lawrence, 1867)**
Figure 3E

Observations. COLOMBIA • 5 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by its characteristic brown stripe between the beak and the eyes. In addition, it is grayish brown throughout the body, with a yellowish collar and a pale beak.

Genus *Patagioenas* Reichenbach, 1852

***Patagioenas cayennensis* (Bonnaterre, 1792)**
Figure 3F

Observations. COLOMBIA • 4 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by its greater size in relation to other pigeons. It has a black beak, red eyes, reddish-brown body feathers, and a gray head and nape.

***Patagioenas plumbea* (Vieillot, 1818)**
Figure 3G

Observations. COLOMBIA • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest.

Identification. We identified this species by its yellow colored eyes and opaque, dark-brown coloration of its dorsum.

Genus *Zenaida* Bonaparte, 1838

***Zenaida auriculata* (Des Murs, 1847)**
Figure 3H

Observations. COLOMBIA • 4 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species by the brownish olive hue on the dorsum and conspicuous black dots on the wing coverts. Additionally, the center of the crown is gray-blue, and there are one black marks on each sides of the head.

Order Cuculiformes
Family Cuculidae
Genus *Crotophaga* Linnaeus, 1758

***Crotophaga ani* (Linnaeus, 1758)**
Figure 3I

Observations. COLOMBIA • 6 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 4 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 4 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by a laterally compressed, arched black bill with a prominent notch on the upper jaw. Additionally, it has opaque black plumage and a long tail.

***Crotophaga major* (Gmelin, 1788)**
Figure 4A

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species because it is the largest of the genus and has prominent green eyes, a compressed black beak with an arched part on the basal portion. Additionally, it has a glossy blue-black body and greenish wings and purple on the tail.

Genus *Piaya* Lesson, 1830

***Piaya cayana* (Linnaeus, 1766)**
Figure 4B

Observations. COLOMBIA • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr.

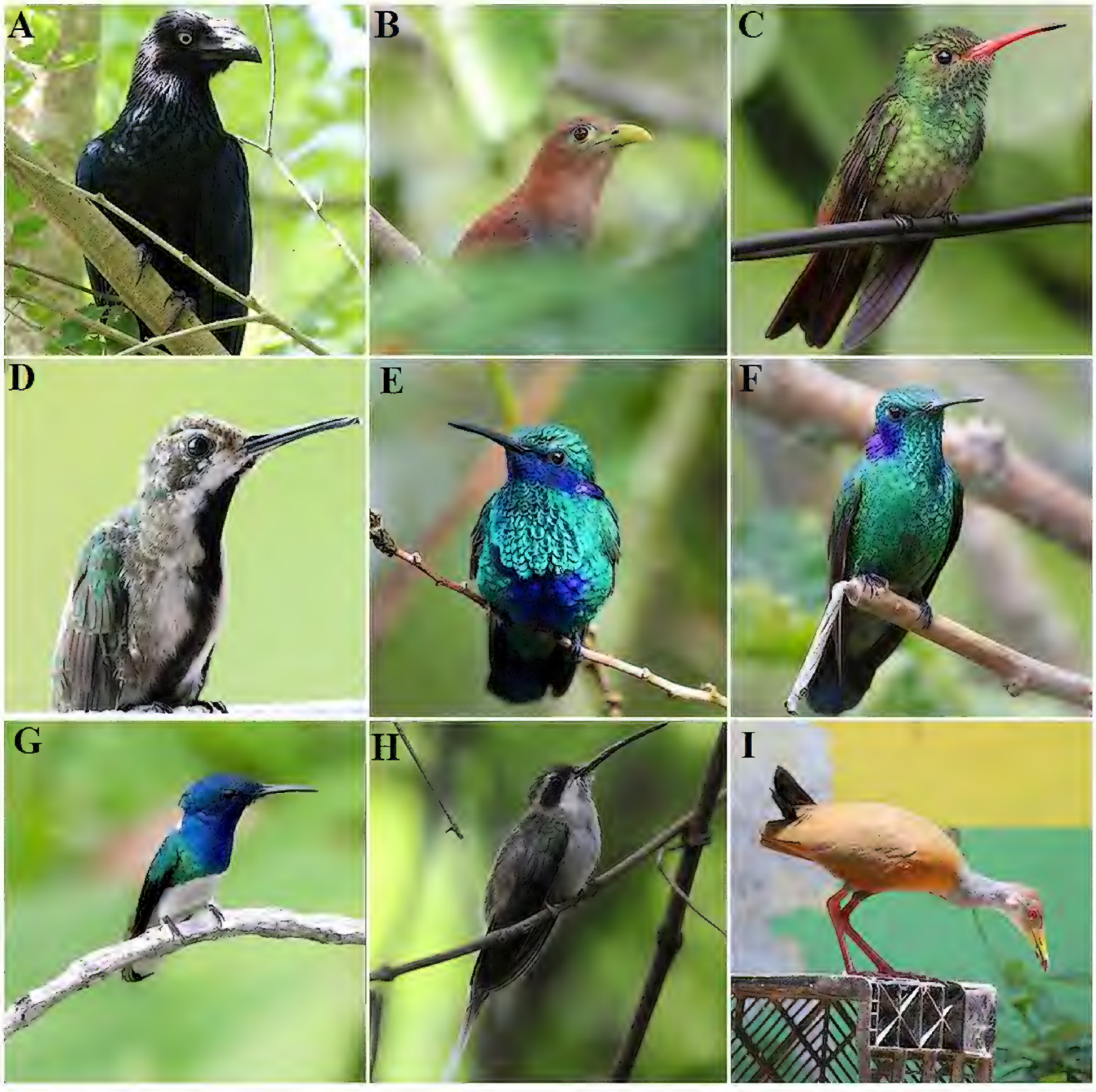

Figure 4. A. *Crotophaga major*; dorsal length 46 cm. **B.** *Piaya cayana*; dorsal length 46 cm. **C.** *Amazilia tzacatl*; dorsal length 9 cm. **D.** *Anthracothorax nigricollis*; dorsal length 10.2 cm. **E.** *Colibri coruscans*; dorsal length 13 cm. **F.** *Colibri cyanotus*; dorsal length 12 cm. **G.** *Florisuga mellivora*; dorsal length 10.5 cm. **H.** *Phaethornis anthophilus*; dorsal length 12.2 cm. **I.** *Aramides cajaneus*; dorsal length 38 cm. Photography: J.S. García.

2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest.

Identification. We identified this species by its pale greenish-yellow beak and bare orbital skin, red eyes, long, rufous-red tail, chestnut-colored back, and gray stripes on the throat and upper chest.

Order Apodiformes
Family Trochilidae
Genus *Amazilia* Lesson, 1843

***Amazilia tzacatl* (de la Llave, 1833)**
Figure 4C

Observations. COLOMBIA • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest.

Identification. We identified this species by its pink lower jaw, beak with a black tip, distinctive rufous-chestnut-color of its tail, and iridescent green throat and chest.

Genus *Anthracothorax* F. Boie, 1831

***Anthracothorax nigricollis* (Vieillot, 1817)**
Figure 4D

Observations. COLOMBIA • 2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest.

Identification. We identified this species by the conspicuous stripe of black feathers on the chest, surrounded by white feathers, the heart-shaped tail with the terminations of the feathers white, and the brown edges of the wings.

Genus *Colibri* Spix, 1824

***Colibri coruscans* (Gould, 1846)**
Figure 4E

Observations. COLOMBIA • 5 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by its distinctive violet stripe on the abdomen, in addition to its robust, long, and almost straight bill. Also, the body is bright green with a narrow iridescent blue violet patch from below the beak to behind the cheek.

***Colibri cyanotus* (Bourcier, 1843)**
Figure 4F

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 04 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We distinguished this species from others of the genus, by its green color with slightly iridescent throat and chest and an elongated violet iridescent cheek.

Genus *Florisuga* Bonaparte, 1850

***Florisuga mellivora* (Linnaeus, 1758)**
Figure 4G

Observations. COLOMBIA • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest.

Identification. We identified this species by the presence of a pattern of distinctive colors throughout its body, where the head, throat and chest are blue; the nape has a white crescent, the back is bright green and the abdomen and tail are white.

Genus *Phaethornis* Swainson, 1827

***Phaethornis anthophilus* (Bourcier, 1843)**
Figure 4H

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by the presence of a slightly curved beak and a yellow lower jaw. Also, it has a dark crown, the center of its throat is mottled, and the ventrum is gray with an immaculate white belly.

Order Gruiformes
Family Rallidae
Genus *Aramides* Pucheran, 1845

***Aramides cajaneus* (Statius Müller, 1776)**
Figure 4I

Observations. COLOMBIA • 1 (no sexual dimorphism);

Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by the bare eye ring, its red legs, gray neck, and moderately large bill, which is yellowish at the base and greenish at the tip.

Genus *Porphyrio* Brisson, 1760

***Porphyrio martinicus* (Linnaeus, 1766)**
Figure 5A

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species by its bluish-purple head and neck, the bronze-green wings, and the white infracaudal feathers.

Order Charadriiformes
Family Charadriidae
Genus *Vanellus* Brisson, 1760

***Vanellus chilensis* (Molina, 1782)**
Figure 5B

Observations. COLOMBIA • 2 (no sexual dimorphism);

Figure 5. A. *Porphyrio martinicus*; dorsal length 33 cm. **B.** *Vanellus chilensis*; dorsal length 35 cm. **C.** *Tringa solitaria*; dorsal length 20 cm. **D.** *Jacana jacana*; dorsal length 22 cm. **E.** *Bubulcus ibis*; dorsal length 54 cm. **F.** *Ardea cocoi*; dorsal length 130 cm. **G.** *Ardea alba*; dorsal length 102 cm. **H.** *Butorides striata*; dorsal length 42 cm. **I.** *Egretta caerulea*; dorsal length 55 cm. Photography: J.S. García.

Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species by its pink beak with a black tip. Also, it has a brownish gray color dorsum with greenish shoulders and a long and sharp crest; the chest is black with a white belly.

Family Scolopacidae
Genus *Tringa* Linnaeus, 1758

***Tringa solitaria* (A. Wilson, 1813)**
Figure 5C

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species by its finely striated, dark-olive dorsum with a pattern of white dots, unlike the bars present in other species of the genus.

Family Jacanidae
Genus *Jacana* Brisson, 1760

***Jacana jacana* (Linnaeus, 1766)**
Figure 5D

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species mainly by its yellow beak, a bilobed red frontal shield, in addition to having long legs and toes.

Order Pelecaniformes
Family Ardeidae
Genus *Bubulcus* Bonaparte, 1855

***Bubulcus ibis* (Linnaeus, 1758)**
Figure 5E

Observations. COLOMBIA • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species by small size, white heron with a thick neck, yellow bill, and greenish legs; there are small opaque yellow patches on the chest and top of the head.

Genus *Ardea* Linnaeus, 1758

***Ardea cocoi* (Linnaeus, 1766)**
Figure 5F

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species by its black crown and sides of the head, the presence of nuptial, occipital, and elongated feathers with white tips, the upper part of the chest and the neck white, and the lower part of the chest and the belly black.

***Ardea alba* (Linnaeus, 1758)**
Figure 5G

Observations. COLOMBIA • 4 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species by its characteristic slender shape, long neck, dull yellow bill, white in the head, throat and occipital area, and black crown sides.

Genus *Butorides* Blyth, 1852

***Butorides striata* (Linnaeus, 1758)**
Figure 5H

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species by its gray sides of the head, neck, and chest and by the white line which extends from the throat to the chest.

Genus *Egretta* T. Forster, 1817

***Egretta caerulea* (Linnaeus, 1758)**
Figure 5I

Observations. COLOMBIA • 1 (no sexual dimorphism);

Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Newly recorded from Serranía de Las Quinchas.

Identification. We identified this species by its gray-blue bill, greenish legs, and dark, slate-blue body with an intense reddish-brown head and neck.

***Egretta thula* (Molina, 1782)**
Figure 6A

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species by its completely white body with black legs and beak; the toes and lores are yellow.

Genus *Nycticorax* T. Forster, 1817

***Nycticorax nycticorax* (Linnaeus, 1758)**
Figure 6B

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species by its robust body, short neck, large black bill, greenish yellow legs, shiny black crown and back and whitish underparts.

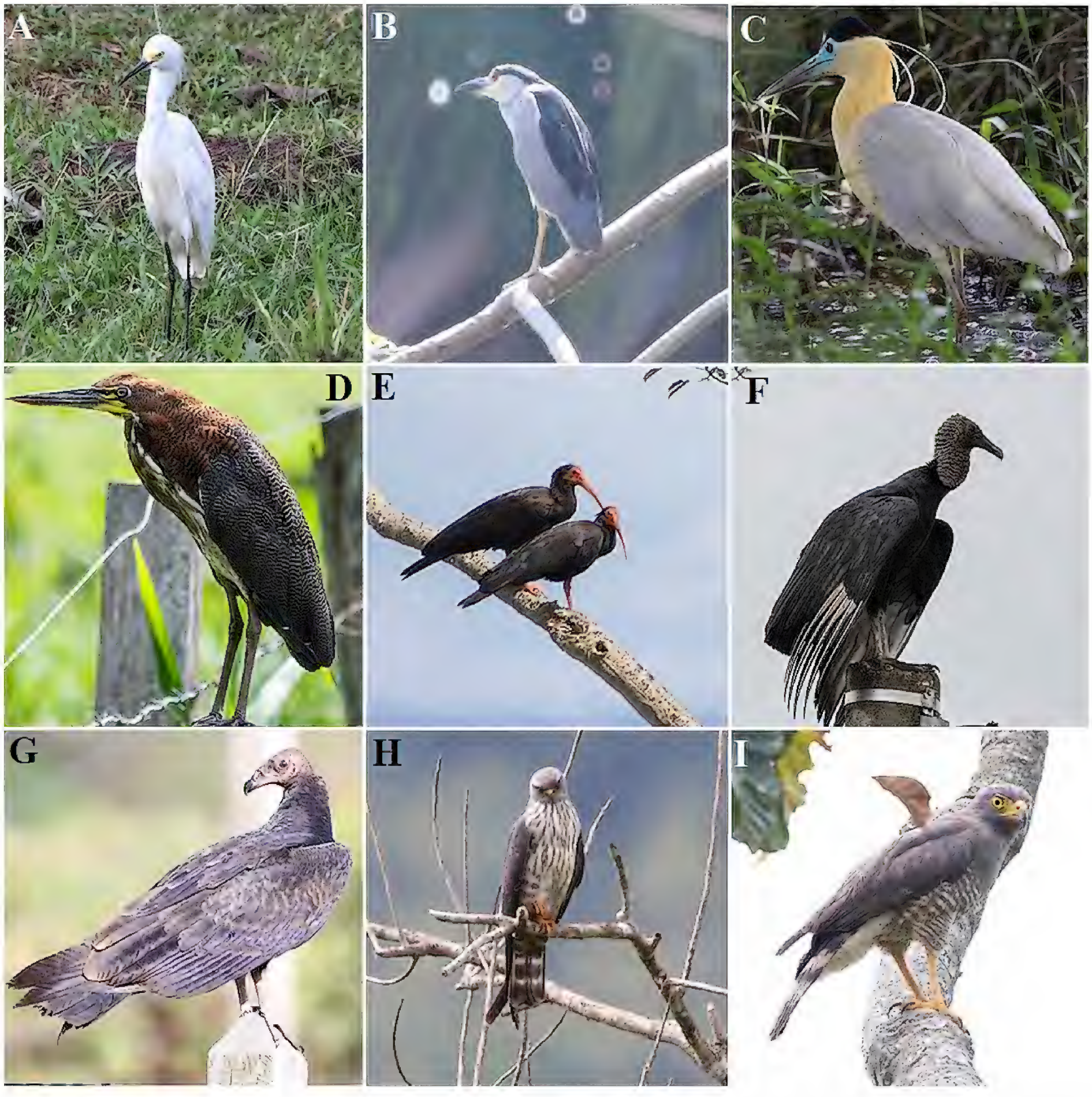

Figure 6. A. *Egretta thula*; dorsal length 47.5 cm. **B.** *Nycticorax nycticorax*; dorsal length 68 cm. **C.** *Pilherodius pileatus*; dorsal length 59 cm. **D.** *Tigrisoma lineatum*; dorsal length 70 cm **E.** *Phimosus infuscatus*; dorsal length 50 cm. **F.** *Coragyps atratus*; dorsal length 60 cm. **G.** *Cathartes aura*; dorsal length 70 cm. **H.** *Ictinia plumbea*; dorsal length 36 cm. **I.** *Rupornis magnirostris*; dorsal length 35 cm. Photography: J.S. García.

Genus *Pilherodius* Reichenbach, 1853

***Pilherodius pileatus* (Boddaert, 1783)**
Figure 6C

Observations. COLOMBIA • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified the species by its cobalt-blue bare face, gray-blue bill, gray legs, black crown, white forehead, and the remaining body completely white.

Genus *Tigrisoma* Swainson, 1827

***Tigrisoma lineatum* (Boddaert, 1783)**
Figure 6D

Observations. COLOMBIA • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species by its long and thick neck and stout black bill with a yellowish base; legs are dull green; head, neck, and chest are deep reddish brown; there are white stripes on neck; the rest of the lower parts are buff brown.

Family Threskiornithidae
Genus *Phimosus* Wagler, 1832

***Phimosus infuscatus* (M.H.C. Lichtenstein, 1823)**
Figure 6E

Observations. COLOMBIA • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species by its pinkish or reddish-brown curved beak, bare facial skin, and pinkish red legs; plumage is entirely black-greenish bronze.

Order Cathartiformes
Family Cathartidae
Genus *Coragyps* Le Maout, 1853

***Coragyps atratus* (Bechstein, 1793)**
Figure 6F

Observations. COLOMBIA • 6 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 5 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We distinguished this species by its bare black-gray head.

Genus *Cathartes* Illiger, 1811

***Cathartes aura* (Linnaeus, 1758)**
Figure 6G

Observations. COLOMBIA • 6 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05° 48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species with its rather distinctly naked red head; the rest of the body feathers are black.

Order Accipitriformes
Family Accipitridae
Genus *Ictinia* Vieillot, 1816

***Ictinia plumbea* (Gmelin, 1788)**
Figure 6H

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We distinguished this eagle from the other members of the family by its sharp and remarkably long wings. Its tail is square and has two white bands below. The eyes are red and the body is slate-gray.

***Rupornis magnirostris* (Gmelin, 1788)**
Figure 6I

Observations. COLOMBIA • 4 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by its proportionally longer tail and shorter wings than other *Rupornis* species, yellow eyes, and mainly for details of its coloration, such as the brownish-gray upper parts, throat, and

chest, and the high density of cinnamon and white bars on the ventral parts.

Order Trogoniformes
Family Trogonidae
Genus *Trogon* Brisson, 1760

***Trogon chionurus* (Sclater & Salvin, 1871)**
Figure 7A

Observations. COLOMBIA • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Newly recorded from Serranía de Las Quinchas.

Identification. We identified this species by its grayish beak, blue eye ring, blue on the upper parts and the back to the tail; the neck tends to be darker than the rest of the body; the lower chest is yellow; there is white at the base of the dorsal tail.

Order Coraciiformes
Family Alcedinidae
Genus *Chloroceryle* Kaup, 1848

***Chloroceryle amazona* (Latham, 1790)**
Figure 7B

Observations. COLOMBIA • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E.

Figure 7. A. *Trogon chionurus*; dorsal length 28 cm. **B.** *Chloroceryle amazona*; dorsal length 30 cm.**C.** *Chloroceryle americana*; dorsal length 20 cm. **D.** *Megaceryle torquata*; dorsal length 40 cm. **E.** *Galbula ruficauda*; dorsal length 28 cm. **F.** *Hypnelus ruficollis*; dorsal length 22 cm. **G.** *Monasa morphoeus*; dorsal length 29 cm. **H.** *Nystalus radiatus*; dorsal length 22 cm. **I.** *Capito hypoleucus*; dorsal length 19 cm. Photography: J.S. García

Morales-González obs.; pasture. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by being the largest. In addition, it has a bright dark green hue and a white neck collar.

***Chloroceryle americana* (Gmelin, 1788)**
Figure 7C

Observations. COLOMBIA • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species as having a brilliant dark-green dorsum with a narrow, incomplete white collar and several rows of white points on the wingtips.

***Megaceryle torquata* (Linnaeus, 1766)**
Figure 7D

Observations. COLOMBIA • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species as having a larger size than than other species of the family and a brilliant green dorsum with a narrow incomplete brown collar male and white in females.

Order Galbuliformes
Family Galbulidae
Genus *Galbula* Brisson, 1760

***Galbula ruficauda* Cuvier, 1816**
Figure 7E

Observations. COLOMBIA • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest.

Identification. We identified this species by its very long black bill, along with a coppery metallic green dorsum, face, and wings.

Family Bucconidae
Genus *Hypnelus* Cabanis & Heine, 1863

***Hypnelus ruficollis* (Wagler, 1829)**
Figure 7F

Observations. COLOMBIA • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by the dark-brown head with rufous spots on the nostrils and white and rufous in front of the eyes. Additionally, there is a whitish patch on the forehead and cheeks.

Genus *Monasa* Vieillot, 1816

***Monasa morphoeus* (Hahn & Küster, 1823)**
Figure 7G

Observations. COLOMBIA • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species as having primarily a slender, curved, orange-red bill, a greyish-black body, and blackish legs.

Genus *Nystalus* Cabanis & Heine, 1863

***Nystalus radiatus* (P.L. Sclater, 1854)**
Figure 7H

Observations. COLOMBIA • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by its greenish-yellow to blackish bill, with creamy yellow irises and greenish-gray legs. Additionally, the body is rufous with black bars.

Order Piciformes
Family Capitonidae
Genus *Capito* Vieillot, 1816

***Capito hypoleucus* (Salvin, 1897)**
Figure 7I

Observations. COLOMBIA • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest. • 4 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest. • 5 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest.

Identification. We identified this species by its yellowish-white bill with bluish bevels at the apex, scarlet

forehead, occiput and mantle mixed black and white but sometimes yellow, sides of head and rest of the upper parts black-blue, throat and upper chest white, with a diffuse pectoral band.

Family Ramphastidae
Genus *Pteroglossus* Illiger, 1811

***Pteroglossus torquatus* (Gmelin, 1788)**
Figure 8A

Observations. COLOMBIA • 6 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by the pale-yellow upper jaw; culmen, apex and lower mandible black; base of beak outlined in white; bare, red eye area; opaque, greenish-black dorsum with red rump; and head and throat black. The body is yellow crossed with red lines.

Genus *Ramphastos* Linnaeus, 1758

Figure 8. A. *Pteroglossus torquatus*; dorsal length 48 cm. **B.** *Ramphastos vitellinus*; dorsal length 55 cm. **C.** *Ramphastos ambiguus*; dorsal length 55 cm. **D.** *Campephilus melanoleucos*; dorsal length 37 cm. **E.** *Celeus loricatus*; dorsal length 23 cm. **F.** *Dryocopus lineatus*; dorsal length 36 cm. **G.** *Melanerpes pulcher*; dorsal length 18 cm. **H.** *Melanerpes rubricapillus*; dorsal length 20.5 cm. **I.** *Veniliornis kirkii*; dorsal length 16 cm. Photography: J.S. García.

***Ramphastos vitellinus* (M.H.C. Lichtenstein, 1823)**
Figure 8B

Observations. COLOMBIA • 4 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest.

Identification. We identified this species by its black bill with the base of the upper jaw and pale yellow peak; the base of the lower jaw is light blue; body mainly black, with orange or red rump; throat and chest white with yellow highlights; pale-blue, bare area around eye.

***Ramphastos ambiguus* (Swainson, 1823)**
Figure 8C

Observations. COLOMBIA • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest.

Newly recorded from Serranía de Las Quinchas.

Identification. We identified this species by its bicolor beak, black lower mandible and large wedge at the base of the upper mandible black and the rest of the beak is yellow; the ocular area is bare yellowish green or blue; black body with white rump and yellow throat.

Family Picidae
Genus *Campephilus* Gray, GR, 1840

***Campephilus melanoleucos* (Gmelin, 1788)**
Figure 8D

Observations. COLOMBIA • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest. • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by its large size and black bill; the entire head is bright red, and the dorsum of the body is black with white lines on the sides and extending to the sides of the back and converging to form a V; throat black; the belly is black barred. This species is sexually dimorphic; the male has a full red face with a small white patch with a black cheek, and the female has a white line from the base of the beak that joins that of the neck.

Genus *Celeus* F. Boie, 1831

***Celeus loricatus* (Reichenbach, 1854)**
Figure 8E

Observations. COLOMBIA • 1 ♀2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest. • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest.

Identification. We identified this species by its short crest on the occiput, with full head and upper parts shiny rufous cinnamon with fringes and black bars. This species is sexual dimorphic, with the males having red on the upper throat.

Genus *Dryocopus* F. Boie, 1826

***Dryocopus lineatus* (Linnaeus, 1766)**
Figure 8F

Observations. COLOMBIA • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest.

Identification. We identified this species by its prominent crown and crest and crimson mustache, two white lines on the sides of the dorsum that do not meet; a narrow white line extends from the beak, passing under the eye, along the sides of the neck; black throat and belly finely striated black and white.

Genus *Melanerpes* Swainson, 1832

***Melanerpes pulcher* (P.L. Sclater, 1870)**
Figure 8G

Observations. COLOMBIA • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by the presence of a mask with a yellow forehead; red crown; golden yellow occiput; upper parts black, broad white line on the back and white rump; white dotted wings; throat and chest dark suede; under the breast and flanks barred black and white barred; center of the belly red.

***Melanerpes rubricapillus* (Cabanis, 1862)**
Figure 8H

Observations. COLOMBIA • 2 ♀2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06° 03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by its yellowish white forehead, red crown, and occiput; rest of upper parts black and white barred, white rump; sides of head to above eyes and ventral gray striped, center of belly red.

Genus *Veniliornis* Bonaparte, 1854

***Veniliornis kirkii* (Malherbe, 1845)**
Figure 8I

Observations. COLOMBIA • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06° 03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♀; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05° 48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by its small size, red crown mixed with black, narrow yellow neck collar; rest of upper parts brownish olive with bright red rump; sides of head grayish brown; evenly barred undersides of light yellow and brown.

Order Falconiformes
Family Falconidae
Genus *Caracara* Merrem, 1826

***Caracara cheriway* (von Jacquin, 1784)**
Figure 9A

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species as having a red orange bill and face, the tip of the bill is silver and large yellow legs. In addition, it has a black crest and hood, with a cream white collar and the rest of the body blackish-brown.

Genus *Falco* Linnaeus, 1758

***Falco rufigularis* Daudin, 1800**
Figure 9B

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by its white collar and a small white band on the upper part of the orange chest and the rest of the chest bluish with fairly defined horizontal white bars.

***Falco sparverius* Linnaeus, 1758**
Figure 9C

Observations. COLOMBIA • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species by its rufous color on the back with a slate blue crown, a black neck collar and back, and rufous scapulars with black stripes.

Genus *Herpetotheres* Vieillot, 1817

***Herpetotheres cachinnans* (Linnaeus, 1758)**
Figure 9D

Observations. COLOMBIA • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species as having an arched and horizontally compressed black bill and a yellow stripe in the center of its head.

Genus *Milvago* Spix, 1824

***Milvago chimachima* (Vieillot, 1816)**
Figure 9E

Observations. COLOMBIA • 6 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E.

Figure 9. A. *Caracara cheriway*; dorsal length 50 cm. **B.** *Falco rufigularis*; dorsal length 26 cm. **C.** *Falco sparverius*; dorsal length 28 cm. **D.** *Herpetotheres cachinnans*; dorsal length 53 cm. **E.** *Milvago chimachima*; dorsal length 45 cm. **F.** *Brotogeris jugularis*; dorsal length 18 cm. **G.** *Amazona amazonica*; dorsal length 34 cm. **H.** *Ara severus*; dorsal length 46 cm. **I.** *Forpus conspicillatus*; dorsal length 13 cm. Photography: J.S. García.

Morales-González obs.; edge forest. • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by its pale blue bill, the periocular area and the face are yellow, the legs are greenish, and the eyes are reddish brown.

Order Psittaciformes
Family Psittacidae

Genus *Brotogeris* Vigors, 1825

***Brotogeris jugularis* (Statius Müller, 1776)**
Figure 9F

Observations. COLOMBIA • 4 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 6 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019;

J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by a short and sharply pointed tail; opaque yellowish bill, body mainly green with small orange stain on chin and extensive orange patch on the shoulder.

Genus *Amazona* Lesson, 1830

***Amazona amazonica* (Linnaeus, 1766)**
Figure 9G

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by its pale-yellow bill with a black tip; the body is mainly green with a yellow central crown and yellow cheeks, separated by forehead and blue lores; primary feathers with blue black apex and red orange wing speculum (visible in flight).

Genus *Ara* Lacépède, 1799

***Ara severus* (Linnaeus, 1758)**
Figure 9H

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest.

Identification. We identified this species by its average size; long and sharply pointed tail; black bill, body mainly green, blue-tinted crown and narrow and inconspicuous brown forehead, nude white face, blue primary feathers.

Genus *Forpus* F. Boie, 1858

***Forpus conspicillatus* (Lafresnaye, 1848)**
Figure 9I

Observations. COLOMBIA • 2 ♀2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 3 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 2 ♀5 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by its short pale-yellow bill; blue region around the eyes; upper and lower wing coverts and rump violet blue; lower surface of the flight feathers bluish-green.

Genus *Pionus* Wagler, 1832

***Pionus menstruus* (Linnaeus, 1766)**
Figure 10A

Observations. COLOMBIA • 4 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by its pale-yellow bill with a pink base, whitish naked area around the eye; blue head, neck, and chest; red on the front of the neck; black cheeks; mainly green body; ventral of tail red.

Genus *Pyrilia* Bonaparte, 1856

***Pyrilia pyrilia* (Bonaparte, 1853)**
Figure 10B

Observations. COLOMBIA • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest.

Identification. We identified this species by its pale-yellow bill; white naked eye ring, bordered with black; yellow head, neck and shoulders; body mainly green with olive green chest.

Order Passeriformes
Family Thamnophilidae
Genus *Formicivora* Swainson, 1824

***Formicivora grisea* (Boddaert, 1783)**
Figure 10C

Observations. COLOMBIA • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Figure 10. A. *Pionus menstruus*; dorsal length 26 cm. **B.** *Pyrilia pyrilia*; dorsal length 24 cm. **C.** *Formicivora grisea*; dorsal length 13 cm. **D.** *Gymnocichla nudiceps*; dorsal length 16 cm. **E.** *Myrmotherula pacifica*; dorsal length 10 cm. **F.** *Thamnophilus doliatus*; dorsal length 16 cm. **G.** *Certhiaxis cinnamomeus*; dorsal length 15 cm. **H.** *Dendroplex picus*; dorsal length 22 cm. **I.** *Lepidocolaptes souleyetii*; dorsal length 22 cm. Photography: J.S. García.

Identification. We identified this species by its distinctive coloration, brownish gray back, black wings with a white bar, and shoulders with white dots and a blackish, rounded tail with broad white tips.

Genus *Gymnocichla* P.L. Sclater, 1858

***Gymnocichla nudiceps* (Cassin, 1850)**
Figure 10D

Observations. COLOMBIA • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We distinguished this bird by its black body color and the bright blue naked eye ring.

Genus *Myrmotherula* P.L. Sclater, 1858

***Myrmotherula pacifica* (Hellmayr, 1911)**
Figure 10E

Observations. COLOMBIA • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest.

Newly recorded from Serranía de Las Quinchas.

Identification. We distinguished this species by its black dorsal coloration with multiple white streaks and a white throat with black streaks.

Genus *Thamnophilus* Vieillot, 1816

***Thamnophilus doliatus* (Linnaeus, 1764)**
Figure 10F

Observations. COLOMBIA • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species, due to its sexual dimorphism, the male has a crest, a robust hook-shaped bill, yellow eyes, a black crown and a black body with thick white bars. The female has an orange-brown color on the body.

Family Furnariidae
Genus *Certhiaxis* Lesson, 1844

***Certhiaxis cinnamomeus* (Gmelin, 1788)**
Figure 10G

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by its rufous cinnamon dorsum, grayish forehead and cheeks, white stripe over the eye, and yellow chin.

Genus *Dendroplex* Swainson, 1827

***Dendroplex picus* (Gmelin, 1788)**
Figure 10H

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We recognized this species for its straight bill, the rufous chestnut hue on the back and a blackish crown with elongated white dots, extending as stripes.

Genus *Lepidocolaptes* Reichenbach, 1853

***Lepidocolaptes souleyetii* (Des Murs, 1849)**
Figure 10I

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We recognized it for its curved bill, the crown and nape of the neck blackish-brown, the abdomen with whitish stripes and the rump, the wings, and the tail colored rufous.

Family Pipridae
Genus *Manacus* Brisson, 1760

***Manacus manacus* (Linnaeus, 1766)**
Figure 11A

Observations. COLOMBIA • 1 ♀2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06° 03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We distinguished this species from others of the genus by its orange legs, the black crown, the wide white neck collar and the black and white body.

Family Cotingidae
Genus *Querula* Vieillot, 1816

***Querula purpurata* (Statius Müller, 1776)**
Figure 11B

Observations. COLOMBIA • 3 ♀2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest. • 1 ♀; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest.

Identification. We identified this species by its purple feathers on the throat and the body is a brilliant black.

Figure 11. A. *Manacus manacus*; dorsal length 10.2 cm. **B.** *Querula purpurata*; dorsal length 30 cm. **C.** *Pachyramphus cinnamomeus*; dorsal length 14 cm. **D.** *Pachyramphus homochrous*; dorsal length 16 cm. **E.** *Tityra inquisitor*; dorsal length 18 cm. **F.** *Tityra semifasciata*; dorsal length 20 cm. **G.** *Aphanotriccus audax*; dorsal length 13.2 cm. **H.** *Colonia colonus*; dorsal length 25 cm. **I.** *Elaenia flavogaster*; dorsal length 17 cm. Photography: J.S. García.

Family Tityridae
Genus *Pachyramphus* Gould & G.R. Gray, 1840

***Pachyramphus cinnamomeus* (Lawrence, 1861)**
Figure 11C

Observations. COLOMBIA • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We recognized this species by its tan-rufous color on the dorsum with different dark and whitish lobes on the feathers above the lores.

***Pachyramphus homochrous* (P.L. Sclater, 1859)**
Figure 11D

Observations. COLOMBIA • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest.

Newly recorded from Serranía de Las Quinchas.

Identification. We recognized this species by its tan-

rufous coloration, which is darker on the crown, wings, and tail.

Genus *Tityra* Vieillot, 1816

***Tityra inquisitor* (M.H.C. Lichtenstein, 1823)**
Figure 11E

Observations. COLOMBIA • 2 ♀2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We recognized this species by its blackish color of the head and white on the body with the black crown and face and white cheeks and tail white.

***Tityra semifasciata* (von Spix, 1825)**
Figure 11F

Observations. COLOMBIA • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified the species from distinctive features such as the broad orbital area, the red-pink bill with black tip, the black forehead and face, the dorsum pale pearl gray and the white ventrum.

Family Tyrannidae
Genus *Aphanotriccus* Ridgway, 1905

***Aphanotriccus audax* (Nelson, 1912)**
Figure 11G

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest.

Newly recorded from Serranía de Las Quinchas.

Identification. We identified this species by its short black bill, light-brown dorsum, white supraloral feathers, dark wings with two pale bars, whitish throat, and pale-yellow belly.

***Colonia colonus* (Vieillot, 1818)**
Figure 11H

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by the presence of a white crown white eyebrow, completely black body, and very long central tail feathers.

Genus *Elaenia* Sundevall, 1836

***Elaenia flavogaster* (Thunberg, 1822)**
Figure 11I

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by the presence of a thick and vertical conspicuous crest, a patch on the crown of white color; the back is brownish olive, with a slightly conspicuous whitish ring and dark wings with two whitish bars.

Genus *Fluvicola* Swainson, 1827

***Fluvicola pica* (Boddaert, 1783)**
Figure 12A

Observations. COLOMBIA • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species by its characteristic chlorination with the white head and lower parts and shades of black on the crown, wings and tail.

Genus *Machetornis* G.R. Gray, 1841

***Machetornis rixosa* (Vieillot, 1819)**
Figure 12B

Observations. COLOMBIA • 4 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

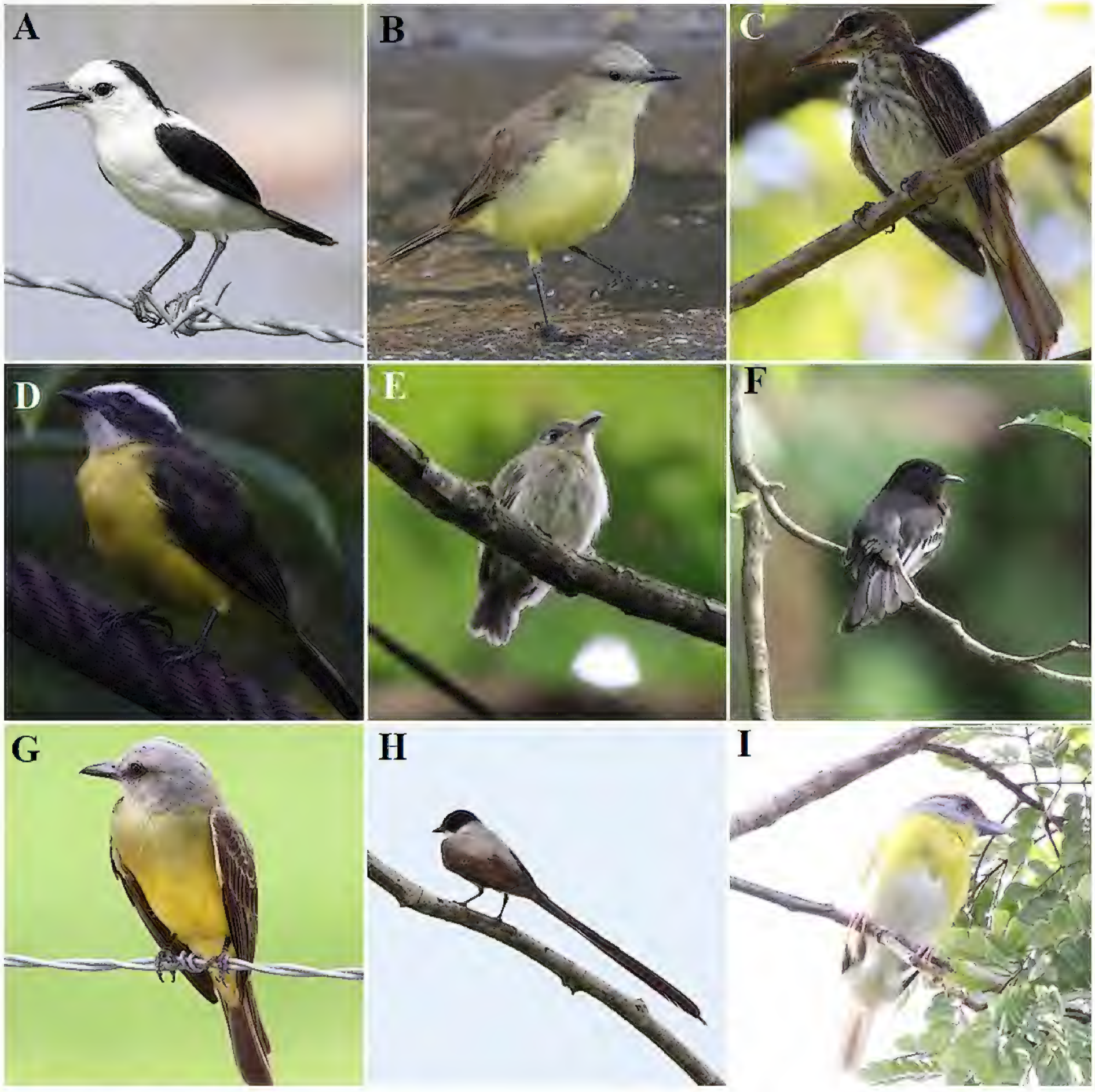

Figure 12. A. *Fluvicola pica*; dorsal length 13 cm. **B.** *Machetornis rixosa*; dorsal length 19 cm. **C.** *Myiodynastes maculatus*; dorsal length 22 cm. **D.** *Myiozetetes cayanensis*; dorsal length 16.5 cm. **E.** *Oncostoma olivaceum*; dorsal length 9 cm. **F.** *Sayornis nigricans*; dorsal length 18 cm. **G.** *Tyrannus melancholicus*; dorsal length 22 cm. **H.** *Tyrannus savana*; dorsal length 38 cm. **I.** *Cyclarhis gujanensis*; dorsal length 15 cm. Photography: J.S. García.

Identification. We distinguished the species by the presence of long legs, red irises, light olive brown back and gray crown and nape with an orange crown patch and a whitish pointed tail tip.

Genus *Myiodynastes* Bonaparte, 1857

***Myiodynastes maculatus* (Statius Müller, 1776)**
Figure 12C

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by the presence of a complex rays or spots throughout the body, most noticeable in the chest and face; the throat is white, the abdomen is pale yellow and has a black conspicuous mask.

Genus *Myiozetetes* P.L. Sclater, 1859

***Myiozetetes cayanensis* (Linnaeus, 1766)**
Figure 12D

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m

a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified it thanks to its characteristic coloration, with olive brown on the back, black crown with a yellow patch, supraciliary white line, white throat and bright yellow ventral region.

Genus *Oncostoma* P.L. Sclater, 1862

***Oncostoma olivaceum* (Lawrence, 1862)**
Figure 12E

Observations. COLOMBIA • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We distinguished this species by its thick beak that is directed downwards; the olive colored dorsum with whitish dots, the dark wings with two bars and yellowish edges, and the olive yellow ventral region.

Genus *Sayornis* Bonaparte, 1854

***Sayornis nigricans* (Swainson, 1827)**
Figure 12F

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We recognized this species because of its sooty black color with white on the lower-middle belly and the indistinct white bars on the wings.

Genus *Tyrannus* Lacépède, 1799

***Tyrannus melancholicus* (Vieillot, 1819)**
Figure 12G

Observations. COLOMBIA • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We distinguished this species by its gray color of the head, a dark mask, an olive grayish dorsum and the short-forked tail.

***Tyrannus savana* (Daudin, 1802)**
Figure 12H

Observations. COLOMBIA • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species by its dark wings, its black tail with an external pair of long basal white feathers and its white belly.

Family Vireonidae
Genus *Cyclarhis* Swainson, 1824

***Cyclarhis gujanensis* (Gmelin, 1789)**
Figure 12I

Observations. COLOMBIA • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We recognized this species by its thick, pale yellow bill, olive back, gray neck and an obvious rufous superciliary band.

Family Corvidae
Genus *Cyanocorax* F. Boie, 1826

***Cyanocorax affinis* Pelzeln, 1856**
Figure 13A

Observations. COLOMBIA • 4 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by the presence of its laterally compressed frontal crest, black head,

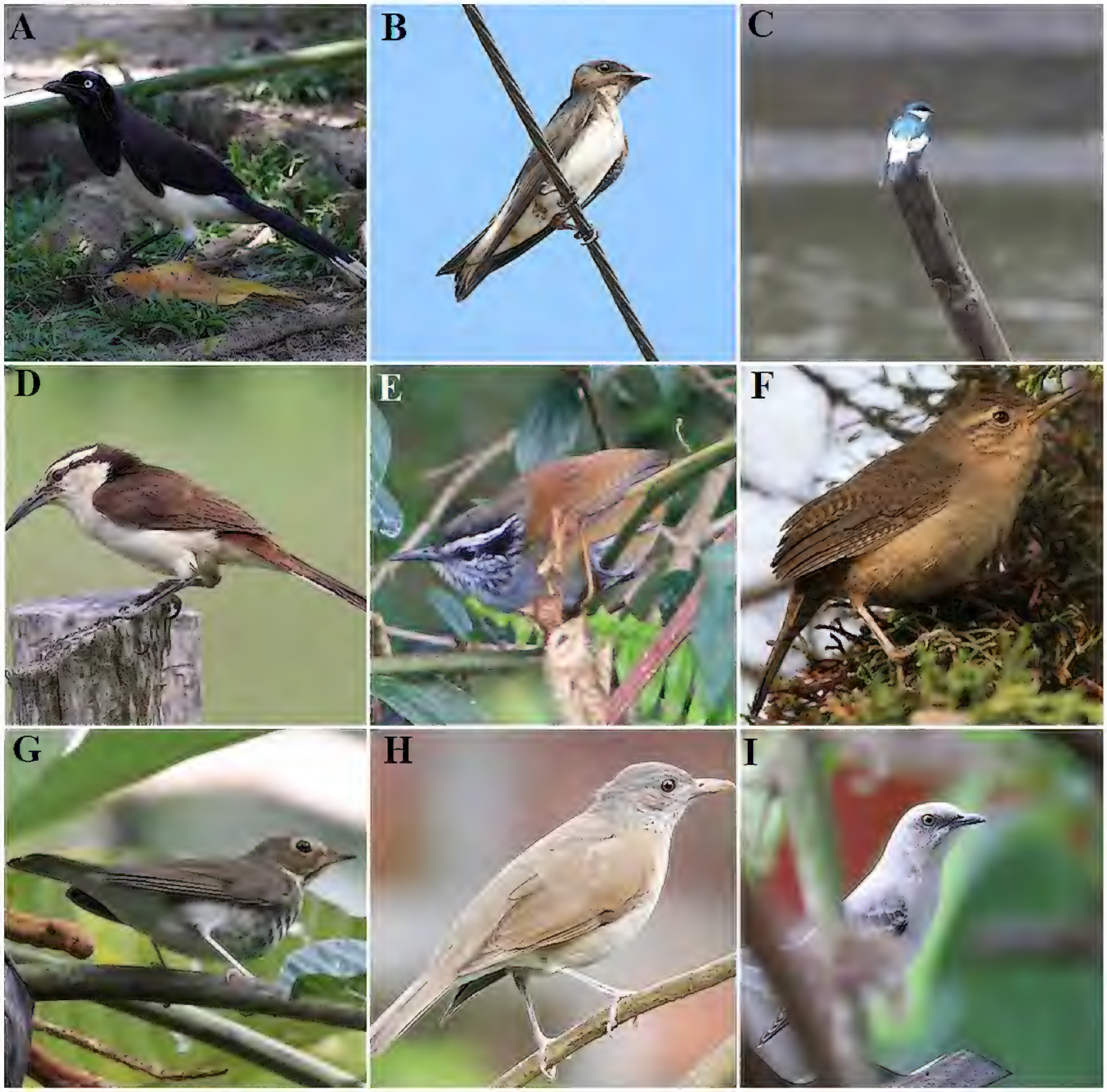

Figure 13. A. *Cyanocorax affinis*; dorsal length 36 cm. **B.** *Progne tapera*; dorsal length 17.5 cm. **C.** *Tachycineta albiventer*; dorsal length 14 cm. **D.** *Campylorhynchus griseus*; dorsal length 21.5 cm. **E.** *Henicorhina leucophrys*; dorsal length 12 cm. **F.** *Troglodytes aedon*; dorsal length 11.4 cm. **G.** *Catharus ustulatus*; dorsal length 18 cm. **H.** *Turdus leucomelas*; dorsal length 24 cm. **I.** *Mimus gilvus*; dorsal length 25 cm. Photography: J.S. García.

blue spots above and below the eye, and pale brown spotted violet back.

Family Hirundinidae
Genus *Atticora* F. Boie, 1844

***Atticora tibialis* (Cassin, 1853)**

Observations. COLOMBIA • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 4 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by its brown color on the ventral parts and blue on the dorsum, in addition to its striking hairpin tail.

Genus *Progne* F. Boie, 1826

***Progne tapera* (Linnaeus, 1766)**
Figure 13B

Observations. COLOMBIA • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. New record of Serranía de Las Quinchas

Identification. We recognized this species by its light

brown pectoral band, its white chest and its slightly forked tail.

Genus *Tachycineta* Cabanis, 1850

***Tachycineta albiventer* (Boddaert, 1783)**
Figure 13C

Observations. COLOMBIA • 8 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We recognized this species by its bright bluish-green back, white rump and undersides, and upper wing coverts with white margins forming a conspicuous wing patch.

Family Troglodytidae
Genus *Campylorhynchus* Spix, 1824

***Campylorhynchus griseus* (Swainson, 1838)**
Figure 13D

Observations. COLOMBIA • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest.

Identification. We recognized this species by its rufous to greyish brown color on the dorsum with a black crown and marked white superciliary bands and white broad-tipped tail feathers (most obvious in flight).

Genus *Henicorhina* P.L. Sclater & Salvin, 1868

***Henicorhina leucophrys* (von Tschudi, 1844)**
Figure 13E

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We recognized this species by its characteristic brown color throughout the body except the throat and head, where there was a contrasting striped face, gray chest and short tail.

Genus *Troglodytes* Vieillot, 1819

***Troglodytes aedon* (Vieillot, 1809)**
Figure 13F

Observations. COLOMBIA • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by its distinctive characteristics the color of spots of café with thin black lines throughout the body, whitish underneath and more rufescent in the rump.

Family Turdidae
Genus *Catharus* Bonaparte, 1850

***Catharus ustulatus* (Nuttall, 1840)**
Figure 13G

Observations. COLOMBIA • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species by the presence of an eye ring that gives it the appearance of glasses and that is not seen in other species of the genus.

Genus *Turdus* Linnaeus, 1758

***Turdus leucomelas* (Vieillot, 1818)**
Figure 13H

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by its yellowish-brown wings and their pale gray color in the ventral region.

Family Mimidae
Genus *Mimus* F. Boie, 1826

***Mimus gilvus* (Vieillot, 1808)**
Figure 13I

Observations. COLOMBIA • 4 (no sexual dimorphism);

Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species by its pale grayish brown body, the presence of a conspicuous blackish "mask", a white superciliary band, and a gray abdomen.

Family Fringillidae
Genus *Euphonia* Desmarest, 1806

***Euphonia laniirostris* (d'Orbigny & Lafresnaye, 1837)**
Figure 14A

Observations. COLOMBIA • 1 ♀2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

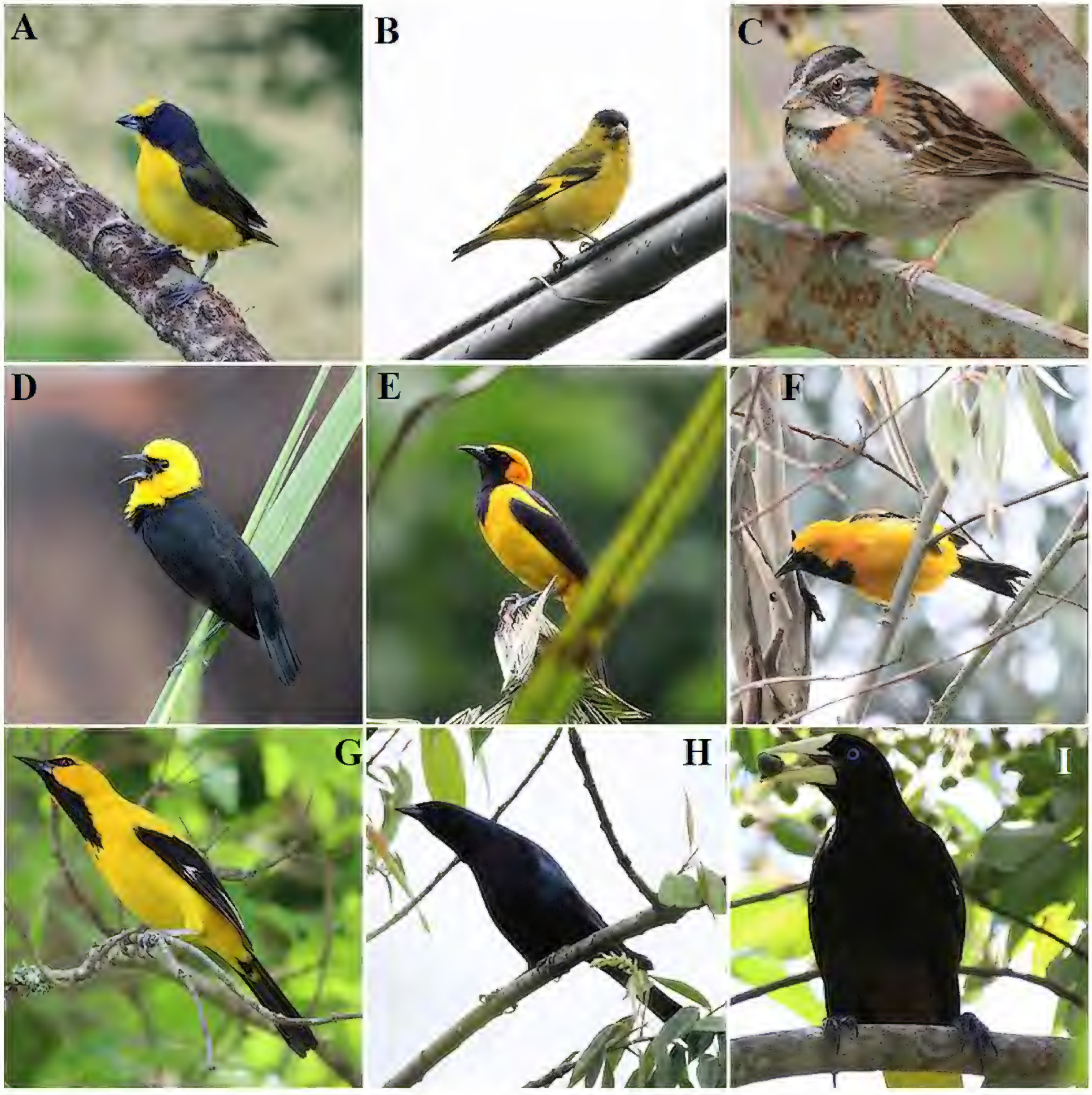

Figure 14. A. *Euphonia laniirostris*; dorsal length 10 cm. **B.** *Spinus psaltria*; dorsal length 10 cm. **C.** *Zonotrichia capensis*; dorsal length 13.4 cm. **D.** *Chrysomus icterocephalus*; dorsal length 18 cm. **E.** *Icterus auricapillus*; dorsal length 19 cm. **F.** *Icterus chrysater*; dorsal length 24 cm. **G.** *Icterus nigrogularis*; dorsal length 21 cm. **H.** *Molothrus bonariensis*; dorsal length 22 cm. **I.** *Psarocolius decumanus*; dorsal length 43 cm. Photography: J.S. García.

Identification. We identified this species by its characteristic coloration, with a bright dark blue dorsum and forehead; the lower parts, the throat and the upper chest is yellow.

Genus *Spinus* Koch, 1816

***Spinus psaltria* (Say, 1822)**
Figure 14B

Observations. COLOMBIA • 3 ♀2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species by its glossy black dorsal coloration, with white dots on the wing margins. Additionally, the ventrum and the throat have a characteristic bright yellow color.

Family Passerellidae
Genus *Zonotrichia* Swainson, 1832

***Zonotrichia capensis* (Statius Müller, 1776)**
Figure 14C

Observations. COLOMBIA • 5 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We distinguished this species by its characteristic gray head with two black lines on the crown, a narrow line behind the eye, a short black malar line and a rufous collar on the nape of the neck and on the sides of the neck.

Family Icteridae
Genus *Chrysomus* Swainson, 1837

***Chrysomus icterocephalus* (Linnaeus, 1766)**
Figure 14D

Observations. COLOMBIA • 2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We distinguished this species by its conical and sharp beak, its yellow hood and black color throughout the body.

Genus *Icterus* Brisson, 1760

***Icterus auricapillus* Cassin, 1848**
Figure 14E

Observations. COLOMBIA • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We recognized this turpial by the orange coloration on the crown and sides of the head, as well as by the narrow black stripe on the forehead and in the area of the eye.

***Icterus chrysater* (Lesson, 1844)**
Figure 14F

Observations. COLOMBIA • 5 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We recognized this species by the golden yellow color of the forehead and the black color of the area around the eye, bib, wings and tail.

***Icterus nigrogularis* (Hahn, 1819)**
Figure 14G

Observations. COLOMBIA • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by its lemon yellow color around the eyes and has a black bib, wings and tail.

Genus *Molothrus* Swainson, 1832

***Molothrus bonariensis* (Gmelin, 1789)**
Figure 14H

Observations. COLOMBIA • 1 ♀2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W;

650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We identified this species by its short and conical bill, its dark eyes and the brilliant blackish purple color throughout the body.

Genus *Psarocolius* Wagler, 1827

***Psarocolius decumanus* (Pallas, 1769)**
Figure 14I

Observations. COLOMBIA • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by its large, yellowish white beak, its bluish eyes, the glossy black color on the back; rump and infracaudals are brown, and the other parts of the body bright yellow.

Family Parulidae
Genus *Myioborus* S.F. Baird, 1865

***Myioborus miniatus* (Swainson, 1827)**
Figure 15A

Observations. COLOMBIA • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We distinguished this species by its slate gray color dorsum, head, throat and chest, as well as a small chestnut patch on the crown, bright yellow abdomen, white external infracaudal feathers.

Genus *Parkesia* Sangster, 2008

***Parkesia noveboracensis* (Gmelin, 1789)**
Figure 15B

Observations. COLOMBIA • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We distinguished this by its dull brownish olive dorsum, its prominent yellowish cream superciliary and by its yellowish white abdomen and lower parts, strongly striated dark brown.

Genus *Setophaga* Swainson, 1827

***Setophaga fusca* (Statius Müller, 1776)**
Figure 15C

Observations. COLOMBIA • 2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We distinguished this species by its black dorsum, the white striations on the back, the white patch on the wing coverts and the intense reddish-orange hue on the crown, throat and chest.

***Setophaga pensylvanica* (Linnaeus, 1766)**

Observations. COLOMBIA • 2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We distinguished this species by its white dorsum, the yellow striations on the back, the yellow-black patch on the wing coverts and the intense reddish-orange of the band hue on the throat and chest.

Family Cardinalidae
Genus *Pheucticus* Reichenbach, 1850

***Pheucticus ludovicianus* (Linnaeus, 1766)**
Figure 15D

Observations. COLOMBIA • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We distinguished this species from others of the genus, by the robust and white beak, the gray blue legs and a pink collar that extends to the center of the chest.

Genus *Piranga* Vieillot, 1807

***Piranga olivacea* (Gmelin, 1789)**
Figure 15E

Observations. COLOMBIA • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by the bright red color on the body and jet black on the wings and tail.

***Piranga rubra* (Linnaeus, 1758)**
Figure 15F

Observations. COLOMBIA • 1 ♀2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Figure 15. A. *Myioborus miniatus*; dorsal length 13 cm. **B.** *Parkesia noveboracensis*; dorsal length 13 cm. **C.** *Setophaga fusca*; dorsal length 13 cm. **D.** *Pheucticus ludovicianus*; dorsal length 20 cm. **E.** *Piranga olivacea*; dorsal length 17 cm. **F.** *Piranga rubra*; dorsal length 18 cm. **G.** *Chlorophanes spiza*; dorsal length 14 cm. **H.** *Coereba flaveola*; dorsal length 11 cm. **I.** *Cyanerpes caeruleus*; dorsal length 4.5 cm. Photography: J.S. García.

Identification. We identified this species by its homogeneous orange red color on the body, darker on the edges of the wing feathers.

Family Thraupidae
Genus *Chlorophanes* Reichenbach, 1853

***Chlorophanes spiza* (Linnaeus, 1758)**
Figure 15G

Observations. COLOMBIA • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest.

Identification. We identified this species by its bright emerald green on the body, crown and sides of the black head black and red eyes.

Genus *Coereba* Vieillot, 1809

***Coereba flaveola* (Linnaeus, 1758)**
Figure 15H

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 2 (no sexual dimorphism);

Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We distinguished this species by its short, thin and clearly curved bill, by its brownish gray dorsum and the black crown and sides of the head.

Genus *Cyanerpes* Oberholser, 1899

***Cyanerpes caeruleus* (Linnaeus, 1758)**
Figure 15I

Observations. COLOMBIA • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We distinguished this species by a distinctive long, slender, curved beak, bright lemon-yellow legs, and a distinctive purple blue back and black throat, wings, and tail.

Genus *Dacnis* Cuvier, 1816

***Dacnis cayana* (Linnaeus, 1766)**
Figure 16A

Observations. COLOMBIA • 1 ♂; Boyacá, Otanche,

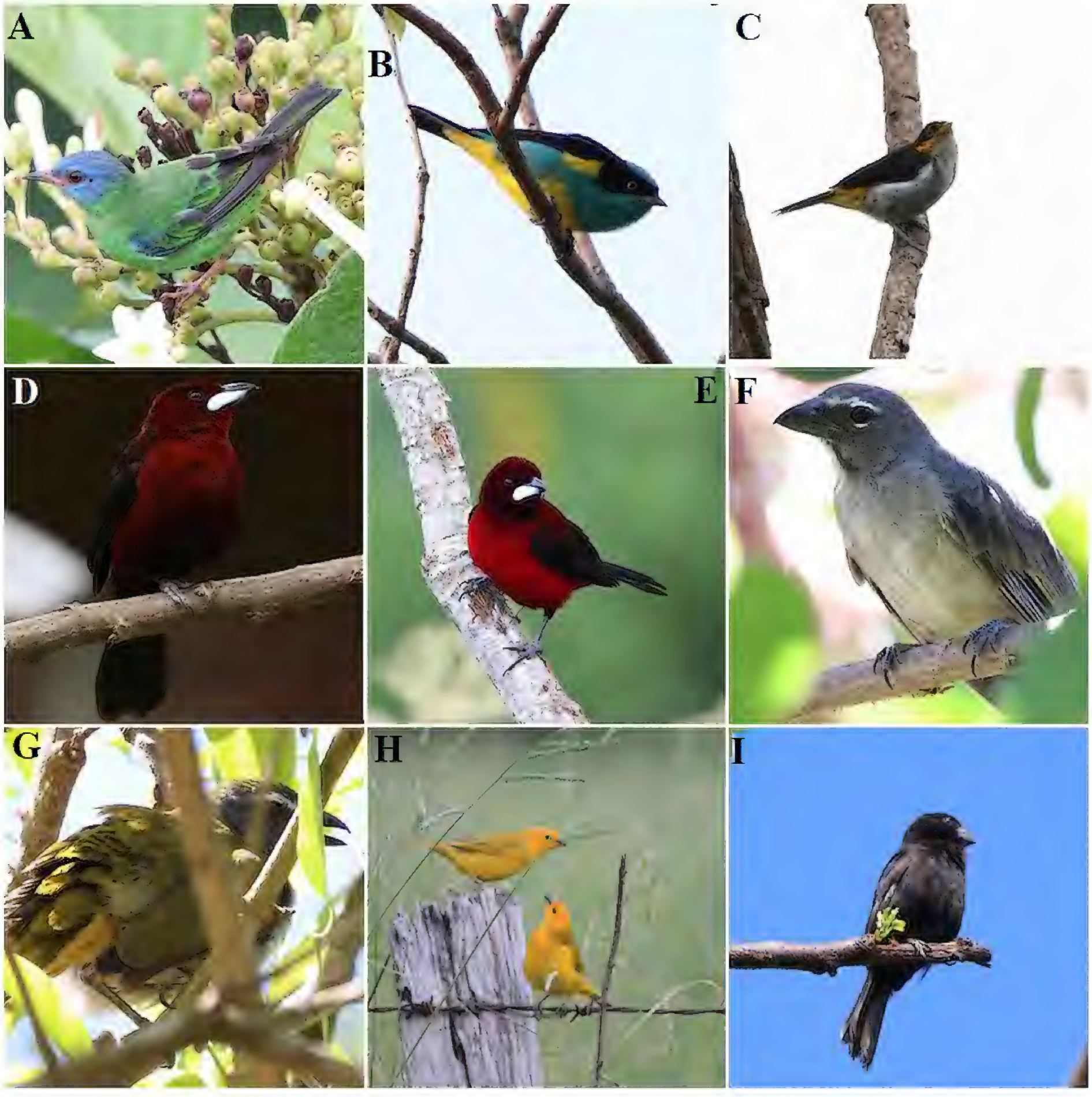

Figure 16. A. *Dacnis cayana*; dorsal length 12.7 cm. **B.** *Dacnis lineata*; dorsal length 12 cm. **C.** *Hemithraupis flavicollis*; dorsal length 14 cm. **D.** *Ramphocelus carbo*; dorsal length 18 cm. **E.** *Ramphocelus dimidiatus*; dorsal length 18 cm. **F.** *Saltator coerulescens*; dorsal length 21 cm. **G.** *Saltator maximus*; dorsal length 21 cm. **H.** *Sicalis flaveola*; dorsal length 14.5 cm. **I.** *Sporophila funerea*; dorsal length 12.5 cm. Photography: J.S. García.

Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We distinguished this species by its characteristic blue color with a black hue of the lores, the mantle, the throat, the wings and the tail and reddish-brown eyes.

***Dacnis lineata* (Gmelin, 1789)**
Figure 16B

Observations. COLOMBIA • 2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We distinguished this species by a bright turquoise blue color with a black mask that begins from the beak, passes over the sides of the head and reaches the top of the back. It also has black wings and tail.

Genus *Hemithraupis* Cabanis, 1850

***Hemithraupis flavicollis* (Vieillot, 1818)**
Figure 16C

Observations. COLOMBIA • 2 ♀2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05° 49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by its black dorsum and its yellow rump, throat and chest.

Genus *Ramphocelus* Desmarest, 1805

***Ramphocelus carbo* (Pallas, 1764)**
Figure 16D

Observations. COLOMBIA • 2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♀; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by its distinctive velvety black color with brown luster throat and a dark crimson upper chest down to black on the undersides.

***Ramphocelus dimidiatus* (Lafresnaye, 1837)**
Figure 16E

Observations. COLOMBIA • 1 ♀, 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We recognized this species by the intense red-brown color of the head, back, throat and chest.

Genus *Saltator* Vieillot, 1816

***Saltator coerulescens* (Vieillot, 1817)**
Figure 16F

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We recognized this species by its dull gray back, white eyebrow, and white throat in the center, bordered by a broad black malar stripe.

***Saltator maximus* (Statius Müller, 1776)**
Figure 16G

Observations. COLOMBIA • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.;

edge forest.

Identification. We recognized this species for its bright olive-green dorsum, the gray color of the sides of the head and ventral and the white color of the chin and the eyebrow.

Genus *Sicalis* F. Boie, 1828

***Sicalis flaveola* (Linnaeus, 1766)**
Figure 16H

Observations. COLOMBIA • 8 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We recognized this species by its being yellow or olive yellow in males, with brown striations on the back and bright orange on part of the crown.

***Sporophila funerea* (P.L. Sclater, 1860)**
Figure 16I

Observations. COLOMBIA • 2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We distinguished this *Sporophila* by its

Figure 17. A. *Sporophila intermedia*; dorsal length 11 cm. **B.** *Sporophila minuta*; dorsal length 9.6 cm. **C.** *Sporophila nigricollis*; dorsal length 10.3 cm. **D.** *Stilpnia larvata*; dorsal length 13 cm. **E.** *Tachyphonus rufus*; dorsal length 18.5 cm. **F.** *Tangara gyrola*; dorsal length 14 cm. **G.** *Tangara inornata*; dorsal length 13 cm. **H.** *Thraupis episcopus*; dorsal length 16.5 cm. **I.** *Thraupis palmarum*; dorsal length 16 cm. Photography: J.S. García.

robust black bill; the males are black, with a chestnut and black abdomen.

***Sporophila intermedia* (Cabanis, 1851)**
Figure 17A

Observations. COLOMBIA • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We disinguished this species by its robust yellow beak, the males seen had a homogeneous bluish gray hue on the body.

***Sporophila minuta* (Linnaeus, 1758)**
Figure 17B

Observations. COLOMBIA • 1 ♀2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 1 ♀1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by the gray dorsal hue and tan-rufous color in the ventral parts (in males); also the wings and tail are dark with small white patches at the base of the primaries and the rump.

***Sporophila nigricollis* (Vieillot, 1823)**
Figure 17C

Observations. COLOMBIA • 2 ♀2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 1 ♀3 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We distinguished this species by its dark blue beak (in males) and its black crown, sides of the head, throat and chest; the rest of the body is dark olive.

Genus *Stilpnia* Brisson, 1760

***Stilpnia larvata* (Du Bus, 1846)**
Figure 17D

Observations. COLOMBIA • 4 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We distinguished this species by its metallic golden colored head with a small black mask surrounded by blue on the front of the face.

Genus *Tachyphonus* Vieillot, 1816

***Tachyphonus rufus* (Boddaert, 1783)**
Figure 17E

Observations. COLOMBIA • 2 ♂; Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 ♂; Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; forest.

Identification. We identified this species by it had a glossy black hue with white wing coverts in males.

Genus *Tangara* Brisson, 1760

***Tangara gyrola* (Linnaeus, 1758)**
Figure 17F

Observations. COLOMBIA • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We identified this species by its characteristic brick red head and grass green in the dorsal region and turquoise blue in the lower parts.

***Tangara inornata* (Gould, 1855)**
Figure 17G

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E.

Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We recognized this species for the dull gray hue of the back, white on the abdomen and brownish on the lores and areas around the eye.

Genus *Thraupis* Brisson, 1760

***Thraupis episcopus* (Linnaeus, 1766)**
Figure 17H

Observations. COLOMBIA • 5 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 3 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture. • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; pasture.

Identification. We recognized this species by its light blue head, neck and lower parts, a dark blue back and blue wings and tail.

***Thraupis palmarum* (Wied-Neuwied, 1821)**
Figure 17I

Observations. COLOMBIA • 2 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, sector Puerto Pinzón, 06°03′06″N, 074°16′56″W; 100 m a.l.s.; 04 May 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Cristalina sector; 05°49′49″N, 074°18′22″W; 650 m a.l.s.; 07 Jul. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest. • 1 (no sexual dimorphism); Boyacá, Otanche, Serranía de Las Quinchas, La Ye sector; 05°48′47″N, 074°15′06″W; 1100 m a.l.s.; 05 Apr. 2019; J.S. García-Monrroy & Ó.E. Morales-González obs.; edge forest.

Identification. We recognized this species by its grayish green hue, darker on the back and with a violet luster. The forehead, ventral, and coverts are yellow; a distinctive feature is the black in the distal half of the wing.

Discussion

The species richness documented in the Serranía de Las Quinchas represents 20% of the total for all of Colombia (Rangel 2005; McMullan et al. 2010). Of the families of birds, the best represented were Tyrannidae and Thraupidae, which is a pattern seen nationally and globally given the large number of species in these two families (Rheindt et al. 2015). Many of the species recorded in the mountains have wide tolerances for anthropogenic activities, which allows them to easily be active in intervening areas, moving between preserved, semi-preserved or transformed habitats according to their needs (Martínez-Bravo et al. 2013).

The composition of birds in the Serranía de Las Quinchas does not seem to vary considerably with altitude. However, the biogeographic characteristics of the massif (Rangel-Ch. 1991), as well as its structure in an incomplete altitudinal gradient from Tropical to Sub-Andean zones (Rangel-Ch. 1991) form an ideal scenario for evaluating spatial aspects of bird diversity and thus better understanding the dynamics, patterns, processes, and mechanisms that follow the richness documented in this research (Camacho 2007).

The species in the list of avifauna of the Las Quinchas mountain range are composed of elements of the Colombian Andes, as well as species from the Chocó, Amazon Basin and a small area of the middle Magdalena river; they are *Gymnocichla nudiceps*, *Amazona autumnalis*, and *Querula purpurata* (Rangel-Ch. et al. 2004; Laverde-R. et al. 2005). Among the Amazonian elements, *Amazonas amazonica* and *Ara severus* stand out. This heterogeneous composition of birds, show us the complexity of the biogeographic origin of this mountainous massif annexed to the Eastern Cordillera of Colombia (Rodríguez and Armenteras 2005), which requires more in-depth study of the fauna and flora to enrich and clarify knowledge of biogeographic knowledge in the Serrania de Las Quinchas.

In the first inventory of the avifauna of the Serrania de Las Quinchas by Stiles and Bohórquez (2000), 308 species were recorded for the mountainous area, which was later added to by Laverde-R. et al. (2005) and Cuervo et al. (2007) who documented 27 and seven newly recorded species, respectively. In our work, 11 newly recorded species were added (*Progne tapera*, *Setophaga pensylvanica*, *Gymnopithys bicolor*, *Myrmotherula pacifica*, *Sporophila crassirostris*, *Pachyramphus homochrous*, *Aphanotriccus audax*, *Egretta caerulea*, *Ramphastos ambiguous*, *Trogon caligatus*, and *Trogon chionurus*), which augment the previously known species richness and faunal composition.

Within the avifauna of the Serranía de Las Quinchas, there are both widely distributed species and those having restricted distributions (Renjifo et al. 2013, 2016). Among the latter, *Crax alberti* stands out, which is Critically Endangered in the Colombian and IUCN Red Lists (Renjifo et al. 2016; BirdLife International 2020), the causes of this category are related to the rapid rate of loss and fragmentation of the habitats that the species occupies. *Capito hypoleucus* and *Dacnis hartlaubi* are Vulnerable (BirdLife International 2020), which infer the

importance of conserving each of the the plant assemblages that make up the altitudinal strips of the Las Quinchas mountain range in the departments of Boyacá, Santander, and Cundinamarca.

Although the richness and composition of species is distributed along the altitudinal strips of the Serranía de Las Quinchas, important areas for the conservation of birdlife stand out: the sectors above 1000 m a.s.l. in the La Ye sector, where there are corridors used by endemic and highly threatened species such as *Crax alberti* and *Capito hypoleucus*. Another important area is the lower part of the Serranía, in the Puerto Pinzón sector, made up of mature, well-preserved forests where endemic species such as *Melanerpes pulcher* are found. It was in this area where we added the most species among those we newly recorded (i.e. after 2000).

Lastly, we encourage monitoring of the Serranía de Las Quinchas by those in charge, as well as evaluating ecotourism practices that are carried out without control and which could directly or indirectly affect the bird diversity in the Serranía de Las Quinchas.

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Authors' Contributions

JSGM, OEMG and JECC conceived the idea, did the field work and wrote the text, confirmed the identification of all specimens and analyzed the data.

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